					DEPARTMENT	T OF NA	OF UTAH TURAL RESO GAS AND M				AMEN	FC DED REPOR	RM 3	
		AP	PLICATION F	OR P	ERMIT TO DRILL					1. WELL NAME and N		2-1M4BS		
2. TYPE O	F WORK	DRILL NEW WELL	REENTE	R P&A	WELL DEEPEN	WELL [)			3. FIELD OR WILDCA		BUTTES		
4. TYPE O	F WELL				d Methane Well: NO					5. UNIT or COMMUNI	TIZATION NATURAL		ENT NAM	ΛE
6. NAME C	F OPERATOR				AS ONSHORE, L.P.					7. OPERATOR PHONE				
8. ADDRE	SS OF OPERATO	OR								9. OPERATOR E-MAIL	L			
	AL LEASE NUM	BER	P.O. Box 1737		nver, CO, 80217 11. MINERAL OWNERS	SHIP				12. SURFACE OWNER		anadarko	.com	
(FEDERAL	., INDIAN, OR S	TATE) UTU-010953			FEDERAL IND	DIAN 🗀) STATE () FEE(FEDERAL INI	DIAN 🛑	STATE	F	EE 🔵
13. NAME	OF SURFACE	OWNER (if box 12 :	= 'fee')							14. SURFACE OWNER	R PHONE	(if box 12	= 'fee')	
15. ADDR	ESS OF SURFA	CE OWNER (if box	12 = 'fee')							16. SURFACE OWNER	R E-MAIL	(if box 12	= 'fee')	
	N ALLOTTEE OF	R TRIBE NAME			18. INTEND TO COMM		PRODUCTION	N FROM		19. SLANT				
(If box 12	= 'INDIAN')				(E)		gling Applicati	on) NO 🤅		VERTICAL DIF	RECTION	AL 📵 H	IORIZON	ΓAL 🔵
20. LOC	TION OF WELL			FOO	DTAGES	QT	FR-QTR	SECT	ION	TOWNSHIP	R	ANGE	МЕ	ERIDIAN
LOCATIO	N AT SURFACE		12	38 FSL	2093 FWL	5	SESW	1		10.0 S	2:	2.0 E		S
Top of U	ppermost Prod	ucing Zone	4	16 FSL	- 819 FWL	S	SWSW	1		10.0 S	2:	2.0 E		S
At Total	Depth		4	16 FSL	819 FWL	S	SWSW	1		10.0 S	2:	2.0 E		S
21. COUN	TY	UINTAH		2	22. DISTANCE TO NEA		EASE LINE (F 16	eet)		23. NUMBER OF ACRI		ILLING UN 60	ΙΤ	
					25. DISTANCE TO NEA (Applied For Drilling o	or Comp		POOL		26. PROPOSED DEPTI		TVD: 852	2	
27. ELEV	ATION - GROUN	D LEVEL		2	28. BOND NUMBER					29. SOURCE OF DRIL WATER RIGHTS APPR			PPI ICAB	I F
		5113					000291					3496		
String	Hole Size	Casing Size	Length	Weig	Hole, Casing		Max Mu			Cement		Sacks	Yield	Weight
Surf	12.25	8.625	0 - 2170	28.			0.2			Type V		180	1.15	15.8
										Class G		270	1.15	15.8
Prod	7.875	4.5	0 - 8769	11.	.6 I-80 LT8	&C	12.	5	Prer	mium Lite High Strer	ngth	270	3.38	11.0
										50/50 Poz		1220	1.31	14.3
					A	TTACH	HMENTS							
	VER	IFY THE FOLLO	WING ARE A	TTACH	HED IN ACCORDAN	ICE WIT	TH THE UT	AH OIL AN	D GAS	CONSERVATION G	ENERA	L RULES		
₩ w	ELL PLAT OR M	AP PREPARED BY I	LICENSED SUR	/EYOR	OR ENGINEER		сом	PLETE DRII	LING P	LAN				
AF	FIDAVIT OF STA	TUS OF SURFACE	OWNER AGREE	MENT	(IF FEE SURFACE)		FORM	1 5. IF OPER	RATOR I	S OTHER THAN THE LE	EASE OW	/NER		
☑ DIF	RECTIONAL SUI	RVEY PLAN (IF DIR	ECTIONALLY C	R HOR	RIZONTALLY DRILLED))	торо	GRAPHICA	L MAP					
NAME Gi	na Becker			Т	TITLE Regulatory Analy	st II			PHON	E 720 929-6086				
SIGNATU	RE			D	DATE 02/03/2012				EMAIL	gina.becker@anadark	o.com			
	BER ASSIGNED 047523750	0000		A	APPROVAL				Br	00.64111				
									Pern	nit Manager				

NBU 1022-1N Pad Drilling Program
1 of 7

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 1022-1M4BS

Surface: 1238 FSL / 2093 FWL SESW BHL: 416 FSL / 819 FWL SWSW

Section 1 T10S R22E

Uintah County, Utah Mineral Lease: UTU-010953

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1097	
Birds Nest	1360	Water
Mahogany	1724	Water
Wasatch	4133	Gas
Mesaverde	6401	Gas
MVU2	7308	Gas
MVL1	7890	Gas
TVD	8522	
TD	8769	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

4. <u>Proposed Casing & Cementing Program:</u>

Please refer to the attached Drilling Program

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

6. <u>Evaluation Program</u>:

Please refer to the attached Drilling Program

NBU 1022-1N Pad Drilling Program 2 of 7

7. <u>Abnormal Conditions</u>:

Maximum anticipated bottom hole pressure calculated at 8522' TVD, approximately equals 5,454 psi 0.64 psi/ft = actual bottomhole gradient

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,567 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

NBU 1022-1N Pad Drilling Program
3 of 7

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KM well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

NBU 1022-1N Pad Drilling Program
4 of 7

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

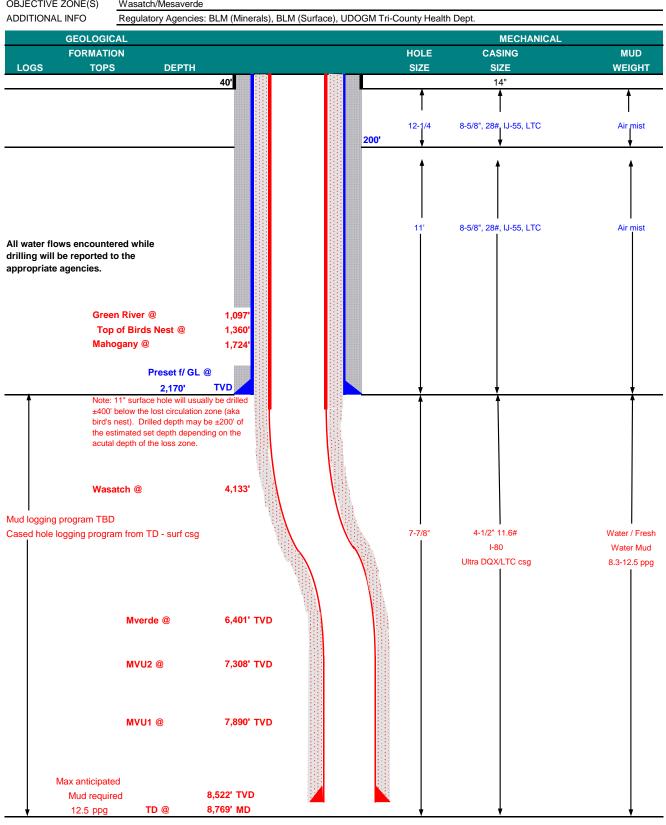
10. <u>Other Information:</u>

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE October 6, 2011 NBU 1022-1M4BS WELL NAME TD 8,522' TVD 8,769' MD FIELD COUNTY Uintah FINISHED ELEVATION 5112.8 Natural Buttes STATE Utah SURFACE LOCATION SESW 1238 FSL 2093 FWL Sec 1 T 10S R 22E Latitude: 39.974093 Longitude: -109.390208 **NAD 83** BTM HOLE LOCATION **SWSW** 416 FSL 819 FWL T 10S R 22E Sec 1 Latitude: 39.971838 Longitude: -109.394753 **NAD 83** OBJECTIVE ZONE(S) Wasatch/Mesaverde





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM	<u>l</u>								DESIGN	FACTORS	
										LTC	DQX
	SIZE	INTE	RVAL		WT.	GR.	CPLG.	BURST	COLL	APSE	TENSION
CONDUCTOR	14"	0	-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,170	28.00	IJ-55	LTC	2.49	1.85	6.54	N/A
								7,780	6,350	223,000	267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.15		3.25
	4-1/2"	5,000	to	8,769'	11.60	I-80	LTC	1.11	1.15	6.30	

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

Ī	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGH	IT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water to	to surface,	option 2 wil	l be utilized		
Option 2 LEAD	1,670'	65/35 Poz + 6% Gel + 10 pps gilsonite	160	35%	11.00		3.82
		+ 0.25 pps Flocele + 3% salt BWOW					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps flocele					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	3,629'	Premium Lite II +0.25 pps	270	20%	11.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	5,140'	50/50 Poz/G + 10% salt + 2% gel	1,220	35%	14.30		1.31
		+ 0.1% R-3					

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000	minimum intervals.

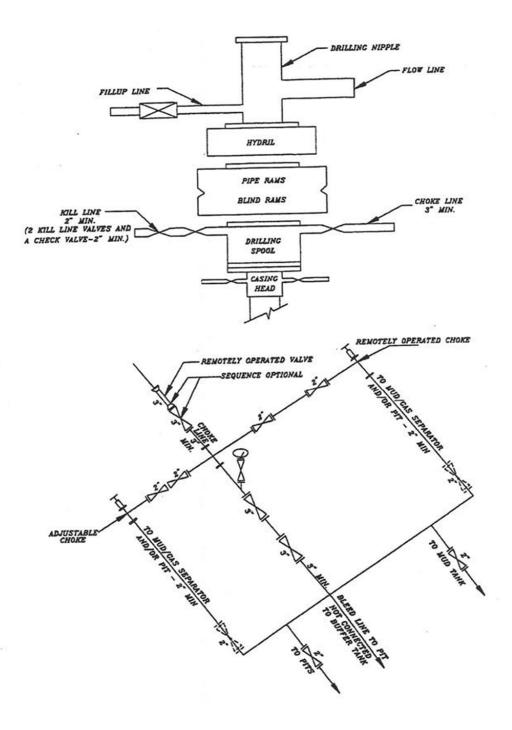
Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

Kenny Gathings / Lovel Young

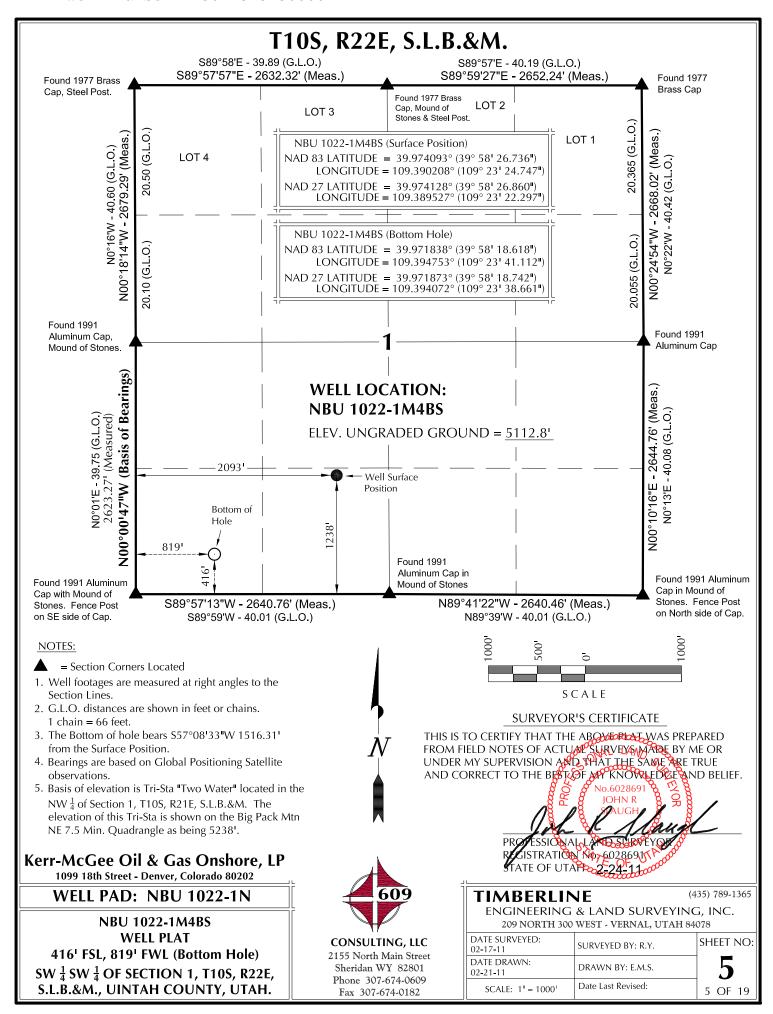
DRILLING ENGINEER:		DATE:	
	Nick Spence / Danny Showers / Chad Loesel		
DRILLING SUPERINTENDENT:		DATE:	

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

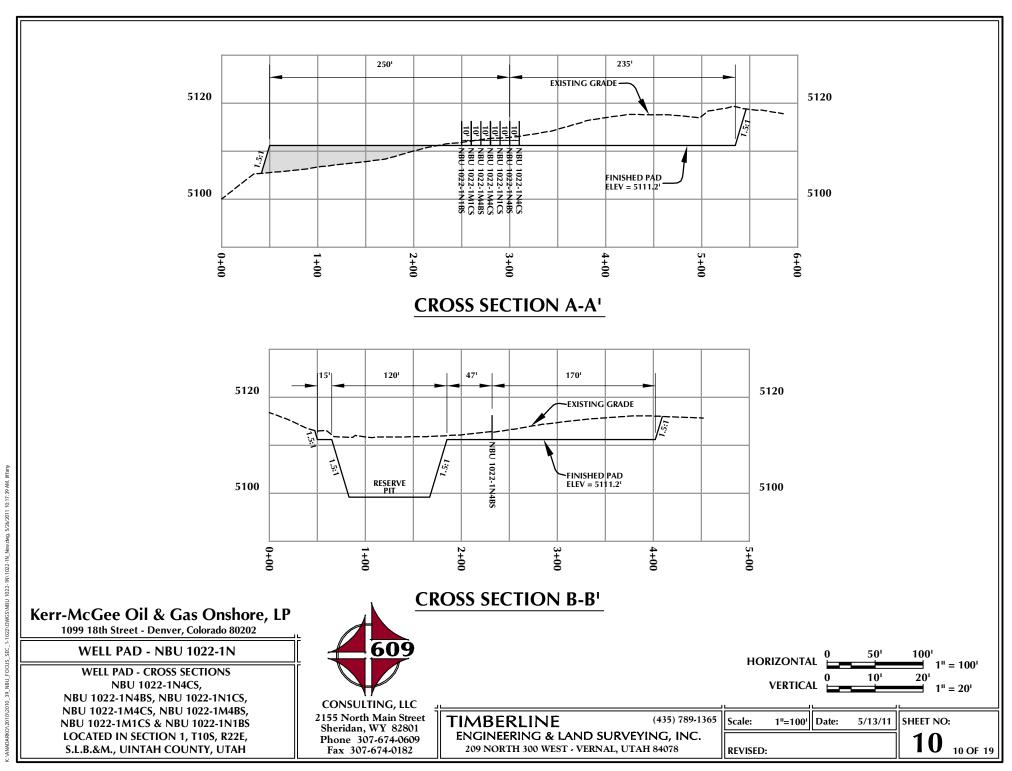
EXHIBIT A NBU 1022-1M4BS

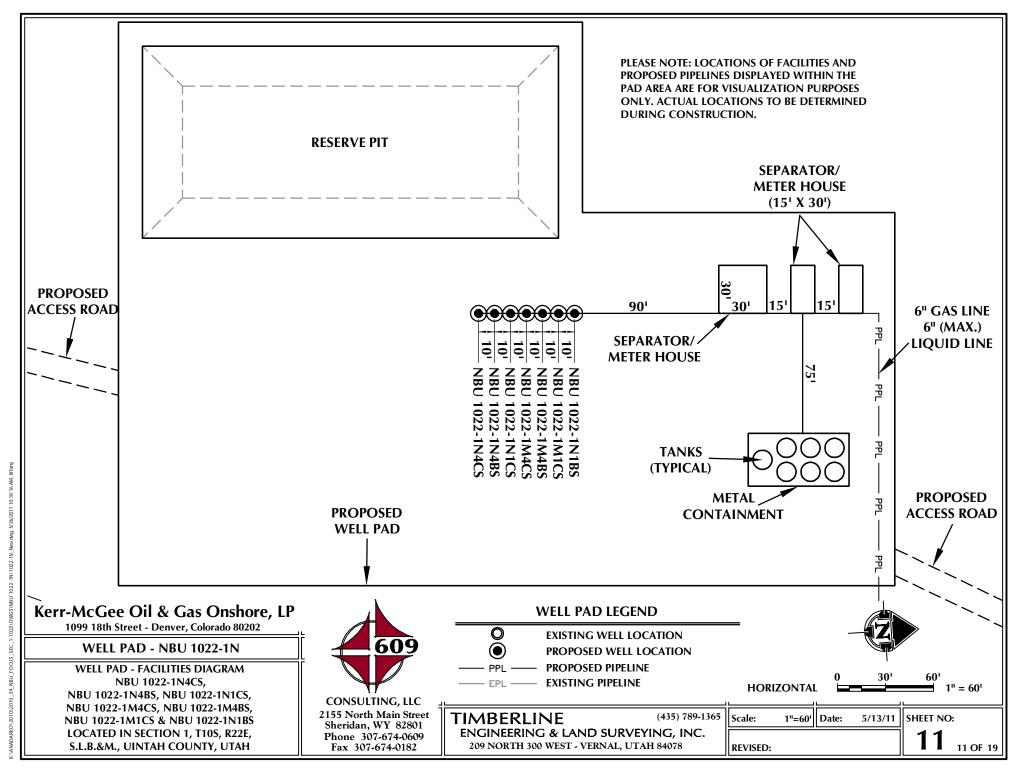


SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



			SURFACE POS	ITION					В	OTTOM HOLE		
WELL NAME		D83	IDE LATITUE	NAD27	ITUDE	FOOTLOSS		NAD		NAI		
NBU	39°58'26.340	LONGITU " 109°23'24.			110DE 22.331"	1198' FSL	LATIT 39°58'1		LONGITUDE 109°23'24.355"	LATITUDE 39°58'17.220"	LONGITUDE 109°23'21.905"	FOOTAGES 262' FSL
1022-1N4CS	39.973983°	109.39021		1.00 =0		2090' FWL	39.971		109 23 24.333 109.390099°	39.971450°	109.389418°	2124' FWL
NBU	39°58'26.440				22.322"	1208' FSL	39°58'2		109°23'24.250"	39°58'20.372"	109°23'21.800"	581' FSL
1022-1N4BS NBU	39.974011° 39°58'26.538	109.39021 109°23'24.			9534° '22.313"	2091' FWL 1218' FSL	39.9722 39°58'2		109.390070° 109°23'24.235"	39.972326° 39°58'23.662"	109.389389° 109°23'21.784"	2132' FWL 914' FSL
1022-1N1CS	39.974038°	109.39021				2092 ¹ FWL	39.9732		109.390065°	39.973239°	109.389385°	2133' FWL
NBU	39°58'26.637	= =			22.304"	1228' FSL	39°58'1		109°23'41.230"	39°58'15.600"	109°23'38.779"	98' FSL
1022-1M4CS NBU	39.974066° 39°58'26.736	109.39021 109°23'24.			9529° '22.297"	2092' FWL 1238' FSL	39.9709 39°58'1		109.394786° 109°23'41.112"	39.971000° 39°58'18.742"	109.394105° 109°23'38.661"	810' FWL 416' FSL
1022-1M4BS	39.974093°	109.39020				2093' FWL	39.9718		109.394753°	39.971873°	109.394072°	819' FWL
NBU	39°58'26.834				22.288"	1248¹ FSL	39°58'2		109°23'41.110"	39°58'22.022"		748¹ FSL
NBU	39.974121° 39°58'26.933	109.39020 109°23'24.		100,00	9524° '22.280"	2094' FWL 1258' FSL	39.9727 39°58'2		109.394753° 109°23'24.309"	39.972784° 39°58'27.140"	109.394072° 109°23'21.859"	819' FWL 1266' FSL
1022-1N1BS	39.974148°	109.39020				2094' FWL	39.974		109.390086°	39.974205°	109.389405°	2127' FWL
			RELAT	IVE COORD	INATES -	From Surface	Position	to Botto	m Hole			
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAS		NAME	NORT	H EAST	WELL NAM	IE NORTH	EAST
NBU 1022-1N4CS	-935.6	33.9	NBU 1022-1N4BS	-626.71	41.2	NBU 1022-1	NICS	-303.	6' 41.4'	NBU 1022-1M40	-1,130.7 ¹	-1,282.1
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAS ⁻		NAME	NORT	H EAST	1022-1711-0	.5	
NBU	-822.71	-1,273.7'	NBU	-500.61	-1,274	.5' NBU		8.4				
1022-1M4BS	02217	1,2,3.,	1022-1M1CS		.,_,	1022-1	N1BS		32.0			,
	S68°33', 14', 231, 231, 14', 231, 231, 231, 231, 231, 231, 231, 231	248.556 22"N 60 Bottom 250° 16.31	11° 28' 1369 28' Hole) Hole) 548° 35' 26' 122'	die 199,40 199,60 de 19056	10, 10, 10, 10, 10,	. 306.39° MBN ♦ 1	N7 1022-1 1022-1 022-1 022-1 022-1	5°34'. Sottom of lole N1BS M1CS M4BS M4CS N1CS N4BS	3	83'		
55	1°08 TO Bott	an /	548033 77		AZ=177.92278° (To Bottom Hole)	. II	— (Tc	Botto	o.23972° om Hole) E - 628.01'	30,		,09
Kerr-Mc(& Gas C	Onshore, L		AZ=177.92278° (To Bottom Hole)	. II	— (Tc	Botto 45'37" TI	om Hole) E - 628.01'	SCALE	(4:	35) 789-1365
Kerr-McC 1099 18 WEL	Gee Oil Bth Street - D L PAD -	& Gas C enver, Color NBU 10 ERFERENC	Onshore, L rado 80202 022-1N E PLAT		AZ=177.92278° (To Bottom Hole)	S02.04 30 E	— (Tc	Botto 45'37" TI	om Hole) E - 628.01' OBJECT: OBJECT:	SCALE INE G & LAND		35) 789-1365 i, INC.
Kerr-McC 1099 18 WEL	Gee Oil of Bith Street - D L PAD - L PAD INT WELLS - NBU	& Gas Cenver, Color NBU 10 ERFERENC J 1022-1N40	Onshore, L rado 80202 022-1N E PLAT		AZ=177 (To Botte	S02.04 30 E	— (Tc S03° ²	D Botto 15'37" TI E	MBERLINGINEERIN 209 NORTH 3	S C A L E INE G & LAND 500 WEST - VER	(4: SURVEYINC RNAL, UTAH 840	35) 789-1365 i, INC. 178
Kerr-McC 1099 18 WEL WEL	Gee Oil of the street - D L PAD - L PAD INT WELLS - NBU 1022-1N4BS	& Gas Cenver, Color NBU 10 ERFERENC 1022-1N40 NBU 1022-	Onshore, L rado 80202 1022-1N E PLAT CS, 1N1CS,	P	CONSTITUTE (TO Botte	S02.04 30 E	— (Tc S03°2	DATE 02-17	MBERLINGINEERIN 209 NORTH 3	SCALE INE G & LAND	(4: SURVEYINC RNAL, UTAH 840	35) 789-1365 i, INC.
Kerr-McC 1099 18 WEL NBU NBU	Gee Oil of Bith Street - D L PAD - L PAD INT WELLS - NBU	& Gas C enver, Color NBU 10 ERFERENC J 1022-1N40 NBU 1022- NBU 1022- & NBU 1022-	Onshore, L rado 80202 D22-1N E PLAT CS, 1N1CS, 1M4BS, 2-1N1BS	P	CONSU 2155 No Sherida	202.04 30 E	C ceet	DATE 02-17	MBERL NGINEERIN 209 NORTH 3 SURVEYED: -11 DRAWN:	S C A L E INE G & LAND 500 WEST - VER	(4: SURVEYINC RNAL, UTAH 840 SY: R.Y.	35) 789-1365 i, INC. 1078





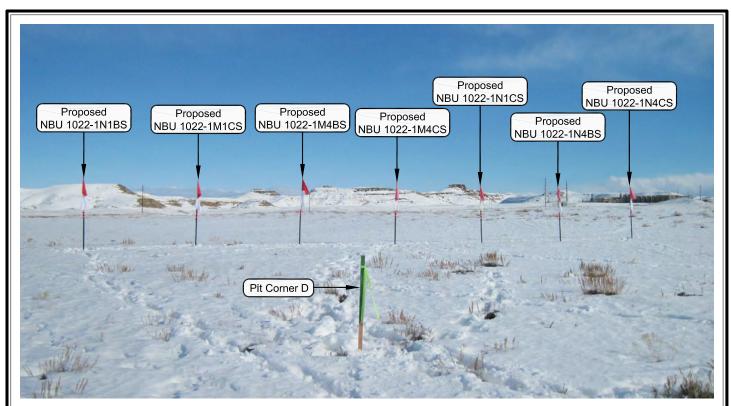


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: SOUTHEASTERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: NORTHEASTERLY

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 1022-1N

LOCATION PHOTOS
NBU 1022-1N4CS,
NBU 1022-1N4BS, NBU 1022-1N1CS,
NBU 1022-1M4CS, NBU 1022-1M4BS,
NBU 1022-1M1CS & NBU 1022-1N1BS
LOCATED IN SECTION 1, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.



CONSULTING, LLC 2155 North Main Street Shoridan WV 82801

2155 North Main Street Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

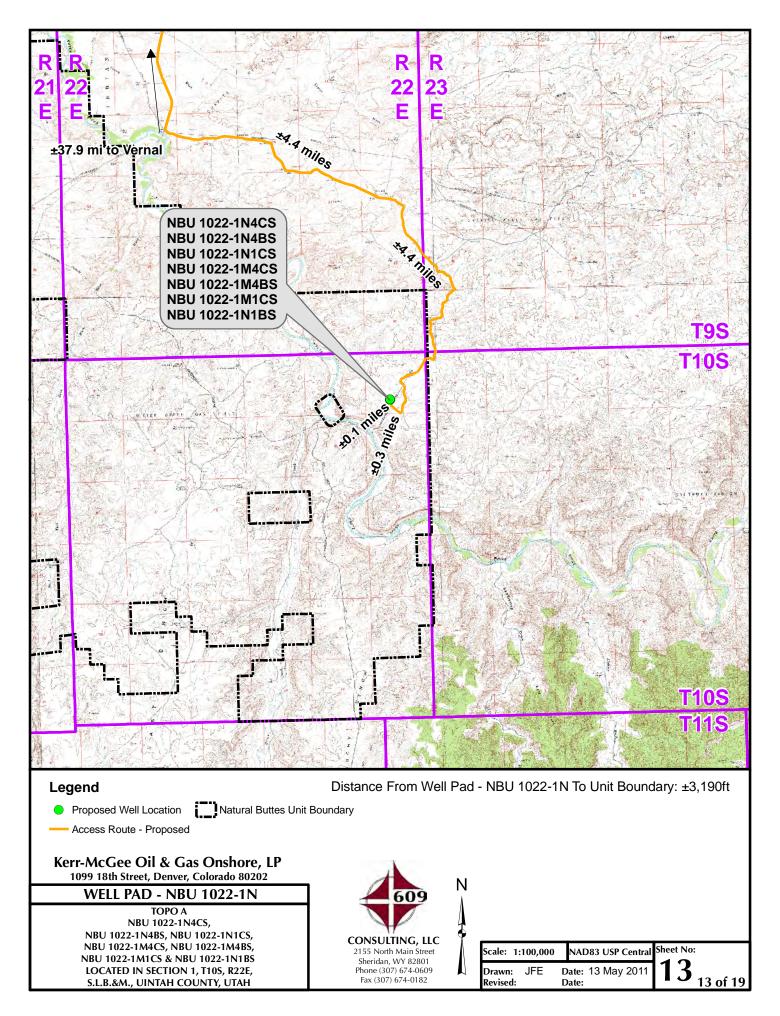
TIMBERLINE

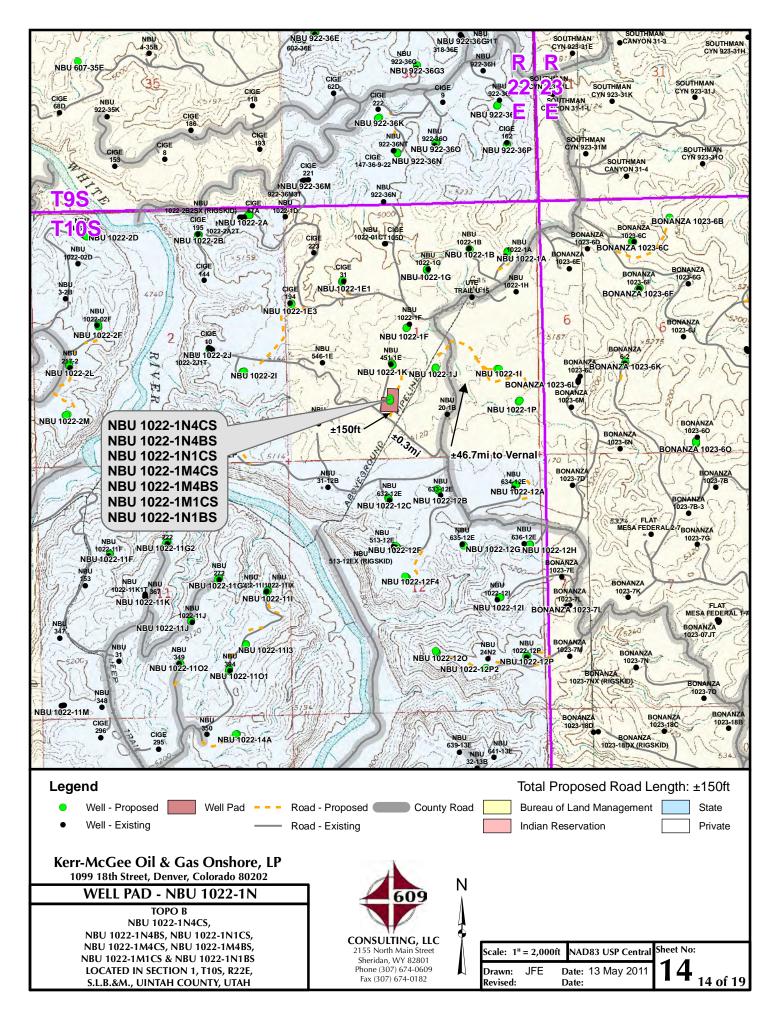
(435) 789-1365

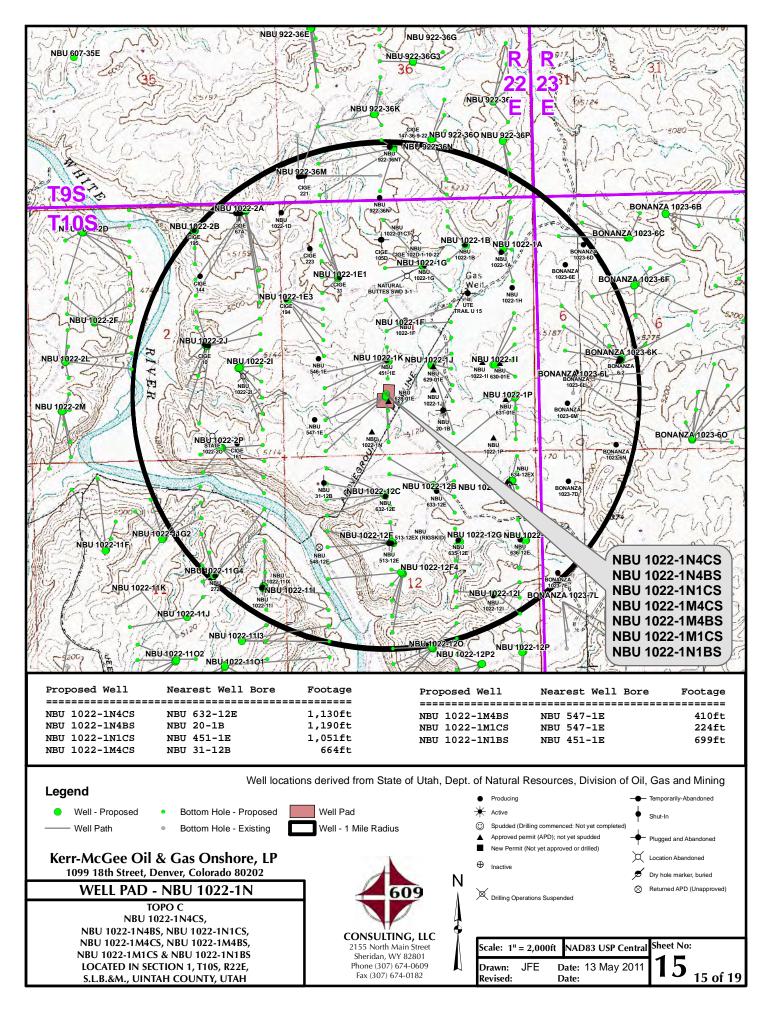
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

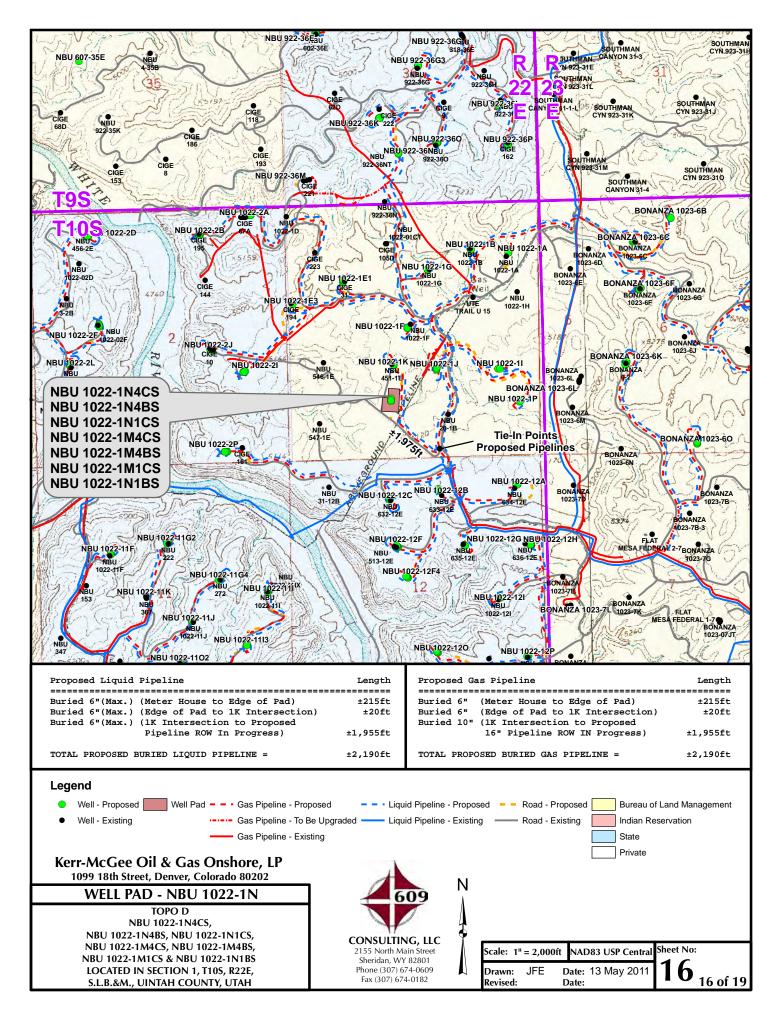
DATE PHOTOS TAKEN: 02-17-11	PHOTOS TAKEN BY: Ř.Y.	SHEET NO:
DATE DRAWN: 02-22-11	DRAWN BY: E.M.S.	12

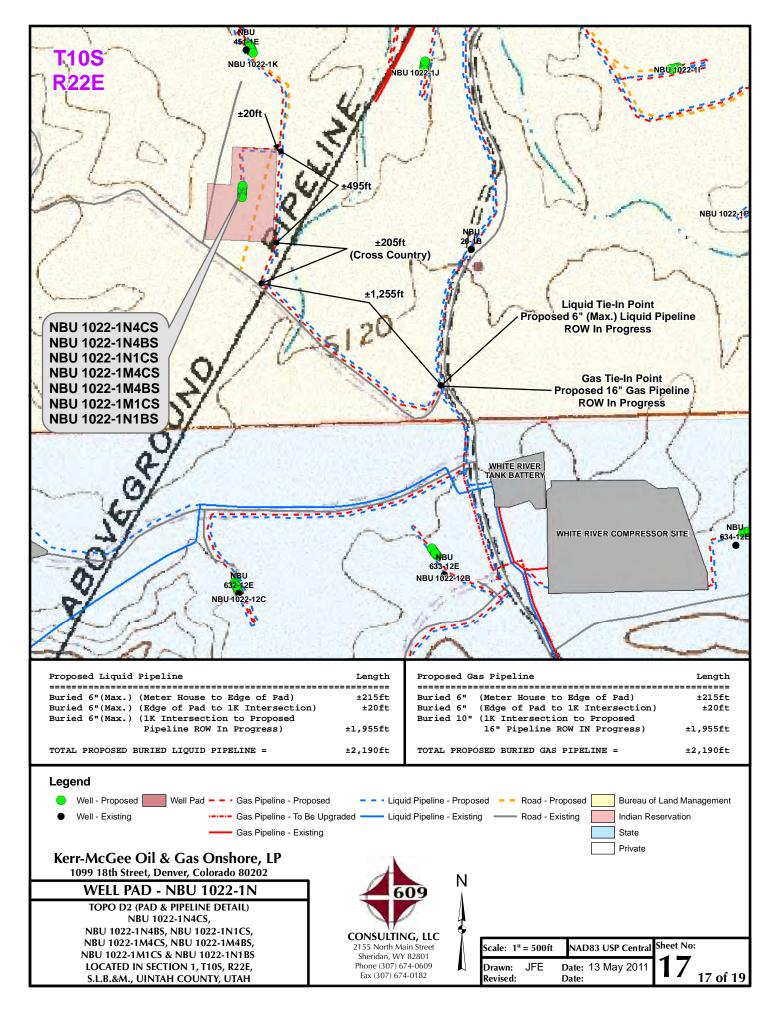
Date Last Revised: 12 OF 19

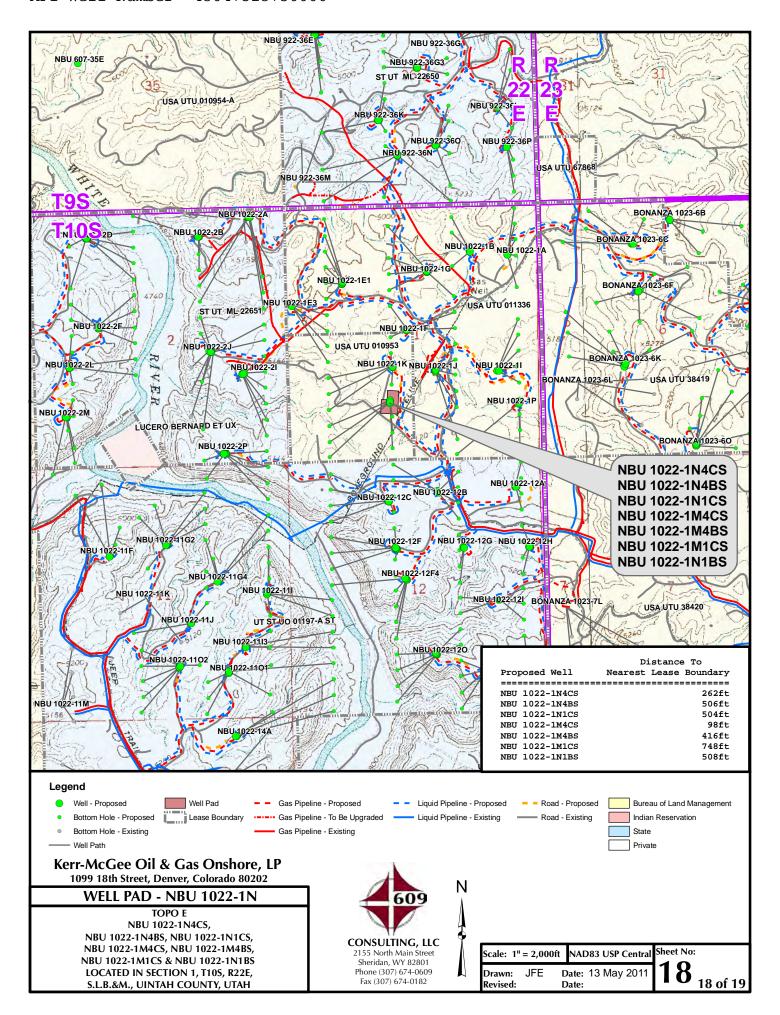












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 1022-1N WELLS – NBU 1022-1N4CS, NBU 1022-1N4BS, NBU 1022-1N1CS, NBU 1022-1M4CS, NBU 1022-1M4BS, NBU 1022-1M1CS & NBU 1022-1N1BS Section 1, T10S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 14.4 miles to the intersection of the Fidlar Road (County B Road 3410) which road intersection is approximately 400 feet northeast of the Mountain Fuel Bridge at the White River. Exit left and proceed in a southeasterly direction along the Fidlar Road approximately 4.4 miles to the intersection of the Seven Sisters Road (County B Road 3420). Exit right and proceed in a southeasterly, then southerly direction along the Seven Sisters Road approximately 4.4 miles to an existing access road to the southwest. Exit right and proceed along the existing access road in a southwesterly, then northwesterly direction approximately 0.3 miles to the proposed access road. Follow road flags in a northeasterly direction approximately 150 feet to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 47.0 miles in a southerly direction.

SHEET 19 OF 19

API Well Number: 43047 5203675 0070A0 - UTM (feet), NAD27, Zone 12N Site: NBU 1022-1N PAD

Scientific Drilling

Rocky Mountain Operations

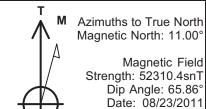
Vertical Section at 237.19° (1500 ft/in)

Well: NBU 1022-1N PAL

Wellbore: OH

Design: PLAN #1 PRELIMINARY

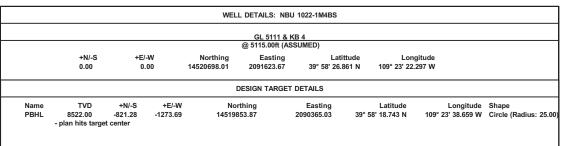


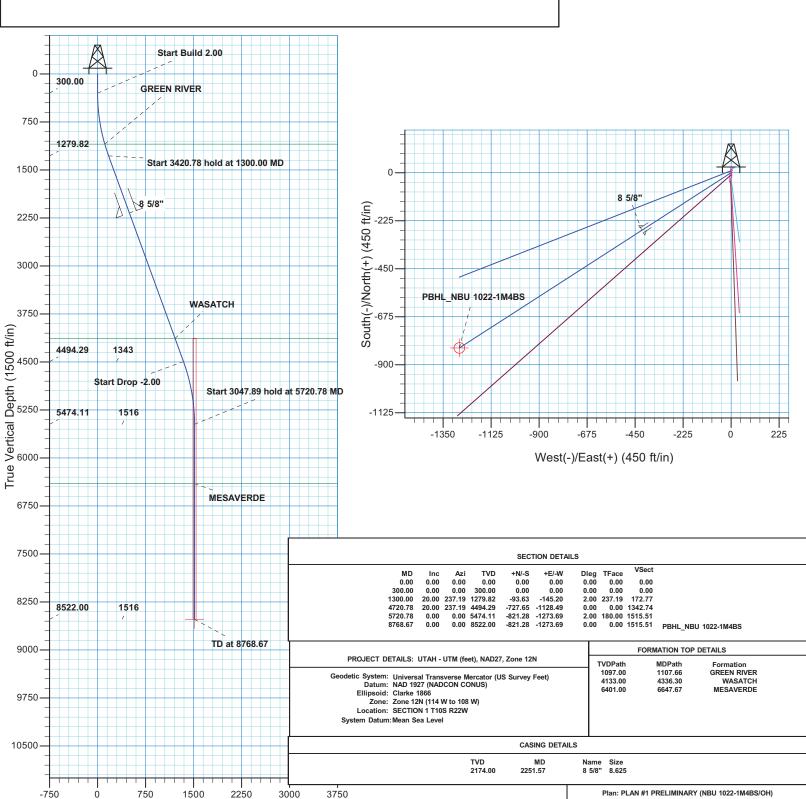


Created By: RobertScott Date: 12:36, August 23 2011

RECEIVED:

Model: IGRF2010







US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N NBU 1022-1N PAD NBU 1022-1M4BS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

23 August, 2011





SDI Planning Report



EDM5000-RobertS-Local Database:

Company: US ROCKIES REGION PLANNING

TVD Reference:

MD Reference:

North Reference:

Local Co-ordinate Reference:

Survey Calculation Method:

Well NBU 1022-1M4BS GL 5111 & KB 4 @ 5115.00ft (ASSUMED)

GL 5111 & KB 4

@ 5115.00ft (ASSUMED)

Minimum Curvature

Mean Sea Level

Site: NBU 1022-1N PAD NBU 1022-1M4BS Well:

Wellbore: ОН

Project:

Design: PLAN #1 PRELIMINARY

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

UTAH - UTM (feet), NAD27, Zone 12N

Geo Datum: Zone 12N (114 W to 108 W) Map Zone:

NAD 1927 (NADCON CONUS)

NBU 1022-1N PAD, SECTION 1 T10S R22W Site

Northing: 14,520,707.86 usft 39° 58' 26.958 N Site Position: Latitude: From: Lat/Long Easting: 2,091,624.33 usft Longitude: 109° 23' 22.286 W 0.00 ft Slot Radius: 13.200 in **Grid Convergence:** 1.03° **Position Uncertainty:**

System Datum:

Well NBU 1022-1M4BS, 1238 FSL 2093 FWL **Well Position** -9.83 ft 14,520,698.01 usft 39° 58' 26.861 N +N/-S Northing: Latitude: +E/-W -0.84 ft Easting: 2,091,623.67 usft Longitude: 109° 23' 22.297 W **Position Uncertainty** 0.00 ft Wellhead Elevation: **Ground Level:** 5.111.00 ft

Wellbore ОН Field Strength Magnetics **Model Name** Sample Date Declination Dip Angle (°) (°) (nT) IGRF2010 08/23/11 11.00 65.86 52,310

PLAN #1 PRELIMINARY Design **Audit Notes:** PLAN 0.00 Version: Phase: Tie On Depth: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 237.19

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	237.19	1,279.82	-93.63	-145.20	2.00	2.00	0.00	237.19	
4,720.78	20.00	237.19	4,494.29	-727.65	-1,128.49	0.00	0.00	0.00	0.00	
5,720.78	0.00	0.00	5,474.11	-821.28	-1,273.69	2.00	-2.00	0.00	180.00	
8,768.67	0.00	0.00	8,522.00	-821.28	-1,273.69	0.00	0.00	0.00	0.00 F	PBHL_NBU 1022-1M



SDI Planning Report



Database: EDM5000-RobertS-Local

Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-1N PAD

 Well:
 NBU 1022-1M4BS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 1022-1M4BS

GL 5111 & KB 4 @ 5115.00ft (ASSUMED)

GL 5111 & KB 4

@ 5115.00ft (ASSUMED)

True

Minimum Curvature

ned Survey									
Measured Depth (ft)	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
(11)	(°)	(°)	(ft)	(ft)	(ft)	(11)	(/ 10011)	(/ 10011)	(/ 10011)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2		0.00	000.00	0.00	0.00	0.00	0.00	0.00	0.00
		227.40	200.00	0.05	1 17	1 75	2.00	2.00	0.00
400.00	2.00	237.19	399.98	-0.95	-1.47	1.75	2.00	2.00	0.00
500.00	4.00	237.19	499.84	-3.78	-5.86	6.98	2.00	2.00	0.00
600.00	6.00	237.19	599.45	-8.50	-13.19	15.69	2.00	2.00	0.00
700.00	8.00	237.19	698.70	-15.11	-23.43	27.88	2.00	2.00	0.00
800.00	10.00	237.19	797.47	-23.59	-36.58	43.52	2.00	2.00	0.00
900.00	12.00	237.19	895.62	-33.93	-52.61	62.60	2.00	2.00	0.00
300.00	12.00	201.10	093.02	-33.33	-JZ.U I	02.00	2.00	2.00	0.00
1,000.00	14.00	237.19	993.06	-46.11	-71.52	85.10	2.00	2.00	0.00
1,100.00	16.00	237.19	1,089.64	-60.14	-93.27	110.98	2.00	2.00	0.00
1,107.66	16.15	237.19	1,097.00	-61.29	-95.05	113.10	2.00	2.00	0.00
GREEN RIVE									
1,200.00	18.00	237.19	1,185.27	-75.98	-117.84	140.21	2.00	2.00	0.00
1,300.00	20.00	237.19	1,279.82	-93.63	-145.20	172.77	2.00	2.00	0.00
			1,279.02	-95.05	-143.20	172.77	2.00	2.00	0.00
Start 3420.78	8 hold at 1300.00	DMD							
1,400.00	20.00	237.19	1,373.78	-112.16	-173.94	206.97	0.00	0.00	0.00
1,500.00	20.00	237.19	1,467.75	-130.69	-202.69	241.17	0.00	0.00	0.00
1,600.00	20.00	237.19	1,561.72	-149.23	-231.43	275.37	0.00	0.00	0.00
1,700.00	20.00	237.19	1,655.69	-167.76	-260.18	309.58	0.00	0.00	0.00
1,800.00	20.00	237.19	1,749.66	-186.30	-288.92	343.78	0.00	0.00	0.00
1,900.00	20.00	237.19	1,843.63	-204.83	-317.67	377.98	0.00	0.00	0.00
2,000.00	20.00	237.19	1,937.60	-223.37	-346.41	412.18	0.00	0.00	0.00
2,100.00	20.00	237.19	2,031.57	-241.90	-375.16	446.38	0.00	0.00	0.00
2,200.00	20.00	237.19	2,125.54	-260.44	-403.90	480.59	0.00	0.00	0.00
2,251.57	20.00	237.19	2,174.00	-269.99	-418.72	498.22	0.00	0.00	0.00
8 5/8"	20.00	207.10	2,174.00	200.00	410.72	450.22	0.00	0.00	0.00
0 3/0									
2,300.00	20.00	237.19	2,219.51	-278.97	-432.65	514.79	0.00	0.00	0.00
2,400.00	20.00	237.19	2,313.48	-297.51	-461.39	548.99	0.00	0.00	0.00
2,500.00	20.00	237.19	2,407.45	-316.04	-490.13	583.19	0.00	0.00	0.00
2,600.00	20.00	237.19	2,501.42	-334.57	-518.88	617.39	0.00	0.00	0.00
2,700.00	20.00	237.19	2,595.39	-353.11	-547.62	651.60	0.00	0.00	0.00
2,800.00	20.00	237.19	2,689.35	-371.64	-576.37	685.80	0.00	0.00	0.00
2,900.00	20.00	237.19	2,783.32	-390.18	-605.11	720.00	0.00	0.00	0.00
3,000.00	20.00	237.19	2,877.29	-408.71	-633.86	754.20	0.00	0.00	0.00
3,100.00	20.00	237.19	2,971.26	-427.25	-662.60	788.40	0.00	0.00	0.00
3,200.00	20.00	237.19	3,065.23	-445.78	-691.35	822.61	0.00	0.00	0.00
3,300.00	20.00	237.19	3,159.20	-464.32	-720.09	856.81	0.00	0.00	0.00
3,400.00	20.00	237.19	3,253.17	-482.85	-748.84	891.01	0.00	0.00	0.00
3,500.00	20.00	237.19	3,347.14	-501.39	-777.58	925.21	0.00	0.00	0.00
3,600.00	20.00	237.19	3,441.11	-519.92	-806.32	959.41	0.00	0.00	0.00
3,700.00	20.00	237.19	3,535.08	-538.45	-835.07	993.62	0.00	0.00	0.00
3,800.00	20.00	237.19	3.629.05	-556.99	-863.81	1,027.82	0.00	0.00	0.00
3,900.00	20.00	237.19	3,723.02	-575.52	-892.56	1,027.82	0.00	0.00	0.00
4,000.00	20.00	237.19	3,816.99	-594.06	-921.30	1,096.22	0.00	0.00	0.00
4,100.00	20.00	237.19	3,910.95	-612.59	-950.05	1,130.42	0.00	0.00	0.00
4,200.00	20.00	237.19	4,004.92	-631.13	-978.79	1,164.63	0.00	0.00	0.00
4,300.00	20.00	237.19	4,098.89	-649.66	-1,007.54	1,198.83	0.00	0.00	0.00
4,336.30	20.00	237.19	4,133.00	-656.39	-1,017.97	1,211.24	0.00	0.00	0.00



SDI Planning Report



EDM5000-RobertS-Local Database:

Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: NBU 1022-1N PAD Well: NBU 1022-1M4BS

Wellbore: ОН

Design: PLAN #1 PRELIMINARY Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 1022-1M4BS

GL 5111 & KB 4 @ 5115.00ft (ASSUMED) GL 5111 & KB 4

@ 5115.00ft (ASSUMED) True

Minimum Curvature

ed Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
WASATCH									
4,400.00	20.00	237.19	4,192.86	-668.20	-1,036.28	1,233.03	0.00	0.00	0.00
4,500.00	20.00	237.19	4,286.83	-686.73	-1,065.03	1,267.23	0.00	0.00	0.00
4,600.00	20.00	237.19	4,380.80	-705.27	-1,093.77	1,301.43	0.00	0.00	0.00
4,700.00	20.00	237.19	4,474.77	-723.80	-1,122.51	1,335.64	0.00	0.00	0.00
4,720.78	20.00	237.19	4,494.29	-727.65	-1,128.49	1,342.74	0.00	0.00	0.00
Start Drop -2		201110	.,		1,120110	.,	0.00	0.00	0.00
4,800.00	18.42	237.19	4,569.10	-741.77	-1,150.39	1,368.81	2.00	-2.00	0.00
4,900.00	16.42	237.19	4,664.52	-757.99	-1,175.54	1,398.73	2.00	-2.00	0.00
5,000.00	14.42	237.19	4,760.91	-772.40	-1,197.88	1,425.31	2.00	-2.00	0.00
5,100.00	12.42	237.19	4,858.18	-784.97	-1,217.38	1,448.51	2.00	-2.00	0.00
5,200.00	10.42	237.19	4,956.20	-795.70	-1,234.01	1,468.31	2.00	-2.00	0.00
5,300.00	8.42	237.19	5,054.84	-804.56	-1,247.76	1,484.66	2.00	-2.00	0.00
5,400.00	6.42	237.19	5,154.00	-811.55	-1,258.61	1,497.57	2.00	-2.00	0.00
5,500.00	4.42	237.19	5,253.55	-816.67	-1,266.54	1,507.01	2.00	-2.00	0.00
5,600.00	2.42	237.19	5,353.37	-819.90	-1,271.55	1,512.97	2.00	-2.00	0.00
5,700.00	0.42	237.19	5,453.33	-821.24	-1,271.55	1,512.97	2.00	-2.00	0.00
5,720.78	0.00	0.00	5,474.11	-821.28	-1,273.69	1,515.51	2.00	-2.00	0.00
	9 hold at 5720.78		2,		.,=	.,	=.00		
5,800.00	0.00	0.00	5,553.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
5,900.00	0.00	0.00	5,653.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
6,000.00	0.00	0.00	5,753.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
6,100.00	0.00	0.00	5,853.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
6,200.00	0.00	0.00	5,953.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
6,300.00	0.00	0.00	6,053.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
6,400.00	0.00	0.00	6,153.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
6,500.00	0.00	0.00	6,253.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
6,600.00	0.00	0.00	6,353.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
6,647.67	0.00	0.00	6,401.00	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
MESAVERD			, , , , , ,		,	,			
6,700.00	0.00	0.00	6,453.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
6,800.00	0.00	0.00	6,553.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
6,900.00	0.00	0.00	6,653.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
7,000.00	0.00	0.00	6,753.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
7,100.00	0.00	0.00	6,853.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
7,200.00	0.00	0.00	6,953.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
7,300.00	0.00	0.00	7,053.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
7,400.00	0.00	0.00	7,153.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
7,500.00	0.00	0.00	7,155.55	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
7,600.00	0.00	0.00	7,353.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
7,700.00	0.00	0.00	7,453.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
7,800.00	0.00	0.00	7,553.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
7,900.00	0.00	0.00	7,653.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
8,000.00	0.00	0.00	7,753.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
8,100.00	0.00	0.00	7,853.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
8,200.00	0.00	0.00	7,953.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
8,300.00	0.00	0.00	8,053.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
8,400.00	0.00	0.00	8,153.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
8,500.00	0.00	0.00	8,253.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
8,600.00	0.00	0.00	8,353.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
8,700.00	0.00	0.00	8,453.33	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00
8,768.67	0.00	0.00	8,522.00	-821.28	-1,273.69	1,515.51	0.00	0.00	0.00



SDI Planning Report



EDM5000-RobertS-Local Database: Company:

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N Project:

NBU 1022-1N PAD Site: Well: NBU 1022-1M4BS

Wellbore:

Design: PLAN #1 PRELIMINARY Local Co-ordinate Reference:

Survey Calculation Method:

TVD Reference:

MD Reference:

North Reference:

Well NBU 1022-1M4BS GL 5111 & KB 4

@ 5115.00ft (ASSUMED)

GL 5111 & KB 4 @ 5115.00ft (ASSUMED)

True

Minimum Curvature

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
TD at 8768.6	67 - PBHL_NBU	1022-1M4BS								

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 1022-1M4B - plan hits target cent - Circle (radius 25.00		0.00	8,522.00	-821.28	-1,273.69	14,519,853.87	2,090,365.03	39° 58′ 18.743 N	109° 23' 38.659 W

Casing Points					
	Measured	Vertical		Casing	Hole
	Depth	Depth		Diameter	Diameter
	(ft)	(ft)	Name	(in)	(in)
	2,251.57	2,174.00 8 5/8"		8.625	11.000

Formations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,107.66 4,336.30 6,647.67	4,133.00	GREEN RIVER WASATCH MESAVERDE				

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coord +N/-S (ft)	dinates +E/-W (ft)	Comment
300.00		0.00	0.00	Start Build 2.00
1,300.00	1,279.82	-93.63	-145.20	Start 3420.78 hold at 1300.00 MD
4,720.78	4,494.29	-727.65	-1,128.49	Start Drop -2.00
5,720.78	5,474.11	-821.28	-1,273.69	Start 3047.89 hold at 5720.78 MD
8,768.67	8,522.00	-821.28	-1,273.69	TD at 8768.67

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Kerr-McGee Oil & Gas Onshore. L.P.

NBU 1022-1N Pad

<u>API #</u>		NBU 1022-1M1CS		
	Surface:	1248 FSL / 2094 FWL	SESW	Lot
	BHL:	748 FSL / 819 FWL	SWSW	Lot
<u>API #</u>		NBU 1022-1M4BS		
		1238 FSL / 2093 FWL	SESW	Lot
	BHL:	416 FSL / 819 FWL	SWSW	Lot
<u>API #</u>		NBU 1022-1M4CS		
	Surface:	1228 FSL / 2092 FWL	SESW	Lot
	BHL:	98 FSL / 810 FWL	SWSW	Lot
API #4304739311		NBU 1022-1N1BS (FKA NBL	J 628-01E)	
	Surface:	1258 FSL / 2094 FWL	SESW	Lot
	BHL:	1266 FSL / 2127 FWL	SESW	Lot
<u>API #</u>		NBU 1022-1N1CS		
	Surface:	1218 FSL / 2092 FWL	SESW	Lot
	BHL:	914 FSL / 2133 FWL	SESW	Lot
API#		NBU 1022-1N4BS		
	Surface:	1208 FSL / 2091 FWL	SESW	Lot
	BHL:	581 FSL / 2132 FWL	SESW	Lot
ADL //		NIDII 4000 4NI400		
<u>API #</u>	i i	NBU 1022-1N4CS	050147	
		1198 FSL / 2090 FWL	SESW	Lot
	BHL:	262 FSL / 2124 FWL	SESW	Lot

An Application for Permit to Drill (APD) was approved by the BLM on January 12, 2009 for the NBU 628-01E well location. A Sundry Notice under separate cover will be submitted to change the location and the well name to the NBU 1022-1N1BS.

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

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The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BLM. BMPs. Described in the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007) and/or BLM Manual Section 9113 (1985) will be considered in consultation with the BLM in the design, construction, improvement and maintenance of all new or reconstructed roads. If a new road would cross a water of the United States, Kerr-McGee will adhere to the requirements of applicable Nationwide Permits of the Department of Army Corps of Engineers.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met. As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s), as necessary.

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Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

The following segments are "on-lease"

 $\pm 150'$ (0.03 miles) – Section 1 T10S R22E (SW/4) – On-lease UTU010953, new access road from the edge of the pad to the existing road. This road will be used concurrently with the NBU 1022-1K Pad. Please refer to Topo B.

C. Location of Existing Wells:

A) Refer to Topo Map C.

D. Location of Existing and/or Proposed Facilities:

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accomodate a 25 year rainfall event. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

GAS GATHERING

Please refer to Exhibit A and Topo D- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent).

Kerr-McGee proposes to install gas gathering lines to tie into a previously approved buried gas pipeline covered under ROW UTU-88692. The total of this proposed gas gathering from the meter to the approved 16" gas pipeline is $\pm 2,190$ ' and the individual segments are broken up as follows:

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The following segments are "onlease", no ROW needed.

- ±215' (0.04 miles) Section 1 T10S R22E (NE/4 SW/4) On-lease UTU010953, BLM surface, New 6" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±20' (0.01 miles) Section 1 T10S R22E (NE/4 SW/4) On-lease UTU010953, BLM surface, New 6" buried gas gathering pipeline from the edge of the pad to the proposed 10" buried gas pipeline at the NBU 1022-1K Pad intersection. Please refer to Exhibit A, Line 15.
- ±495' (0.1 miles) Section 1 T10S R22E (SW/4) On-lease UTU010953, BLM surface, New 10" buried gas gathering pipeline from the NBU 1022-1K Pad intersection to the SE corner of the NBU 1022-1N pad. This pipeline will be used concurrently with the NBU 1022-1K Pad. Please refer to Exhibit A, Line 13.
- ±205' (0.04 miles) Section 1 T10S R22E (SE/4 SW/4) On-lease UTU010953, BLM surface, New 10" buried gas gathering pipeline from the SE corner of the NBU 1022-1N Pad traveling cross country to the existing road to the south. Please refer to Exhibit A, Line 12. This pipeline will be used concurrently with the NBU 1022-1K Pad.
- ±1,225' (0.2 miles) Section 1 T10S R22E (S/2) On-lease UTU010953 and UTU011336, BLM surface, New 10" buried gas gathering pipeline from the existing road to the south of the NBU 1022-1N Pad to the tie-in at the previously approved 16" gas gathering pipeline. Please refer to Exhibit A, Line 11. This pipeline will be used concurrently with the NBU 1022-1K Pad.

Kerr-McGee proposes to install liquid gathering lines to tie into a previously approved buried liquid pipeline covered under ROW UTU-88691. The total of this proposed liquid gathering from the separator to the approved liquid pipeline is $\pm 2,190$ ' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- ±215' (0.04 miles) Section 1 T10S R22E (NE/4 SW/4) On-lease UTU010953, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ± 20 ' (0.01 miles) Section 1 T10S R22E (NE/4 SW/4) On-lease UTU010953, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad to the NBU 1022-1K Pad intersection. Please refer to Exhibit B, Line 15.
- ±495' (0.1 miles) Section 1 T10S R22E (SW/4) On-lease UTU010953, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-1K Pad intersection to the SE corner of the NBU 1022-1N pad. This pipeline will be used concurrently with the NBU 1022-1K Pad. Please refer to Exhibit B, Line 13.
- ±205' (0.04 miles) Section 1 T10S R22E (SE/4 SW/4) On-lease UTU010953, BLM surface, New 6" buried liquid gathering pipeline from the SE corner of the NBU 1022-1N Pad traveling cross country to the existing road to the south. Please refer to Exhibit B, Line 12. This pipeline will be used concurrently with the NBU 1022-1K Pad.
- ±1,225' (0.2 miles) Section 1 T10S R22E (S/2) On-lease UTU010953 and UTU011336, BLM surface, New 6" buried liquid gathering pipeline from the existing road to the south of the NBU 1022-1N Pad to the tie-in at the previously approved liquid gathering pipeline. Please refer to Exhibit B, Line 11. This pipeline will be used concurrently with the NBU 1022-1K Pad.

Pipeline Gathering Construction

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Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee. Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45 ft for buried lines and 30 ft for surface lines. In addition, Kerr-McGee requests for a permanent 30' distrubance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent distrubance width is for maintenance and repairs. Cross country permanent distrubance width also are required to be 30ft.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter, but 6-inch diameter pipes are generally used for gas lift. If two or more pipelines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage

crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will

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be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface. Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the BLM, Vernal Field Office before terminating of the use of the pipeline(s).

The Anadarko Completions Transportation System (ACTS) information:

Please refer to Exhibit C for ACTs Lines

Kerr-McGee will use either a closed loop drilling system that will require one pit and one storage area to be constructed on the drilling pad or a traditional drilling operation with one pit. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit is lined and will be used for the wells drilled on the pad or used as part of our Anadarko Completions Transportation (ACTS) system which is disussed in more detail below. Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completion pit.

If Kerr-McGee does not use a closed loop system, it will construct a drilling reserve pit to contain drill cuttings and for use in completion operations. Depending on the location of the pit, its relation to future drilling locations, the reserve/completion pit will be utilized for the completion of the wells on that pad and/or be used as part of our ACTS system.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum liquids transfer lines between frac locations. The pit will be refurbished as follows when a traditional drill pit is used: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom of pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit.

All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

The collected hydrocarbons will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks would unload and load to prevent damage caused from pulling hoses in and out of the pit.

ACTS will require temporarily laying multiple 6" aluminum water transfer lines on the surface between either existing or refurbished reserve pits. Please see the attached ACTS exhibit C for placement of the proposed temporary lines. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon completion of the frac

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operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production of the first produced well on the pad. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. If the pit is not needed for an entire year it will be backfilled and reclaimed earlier. Kerr-McGee understands that due to the temporary nature of this system, BLM considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BLM.

E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:

Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from federal lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BLM, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit whether a closed loop system is used or not. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BLM, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

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Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BLM.

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

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Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E

NBU #159 in Sec. 35 T9S R21E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

10/112011

RECEIVED: February 02, 2012

NBU 1022-1M1CS / 1022-1M4BS / 1022-1M4CS 1022-1N1BS / 1022-1N1CS / 1022-1N4BS / 1022-1N4CS

NBU 1022-1N Pad Surface Use Plan of Operations 10 of 15

NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 34 T9S R21E

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of distrubance will not exceed the maximum disturbance outlined in the attached exhibits.

For the protection of livestock and wildlife, all open pits and cellars will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/ Produced Liquid tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BLM.

J. Plans for Surface Reclamation:

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification

NBU 1022-1M1CS / 1022-1M4BS / 1022-1M4CS 1022-1N1BS / 1022-1N1CS / 1022-1N4BS / 1022-1N4CS NBU 1022-1N Pad Surface Use Plan of Operations 11 of 15

will be provided to the BLM for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

Final Reclamation

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BLM. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications of the BLM.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BLM.

Measures Common to Interim and Final Reclamation

NBU 1022-1M1CS / 1022-1M4BS / 1022-1M4CS 1022-1N1BS / 1022-1N1CS / 1022-1N4BS / 1022-1N4CS NBU 1022-1N Pad Surface Use Plan of Operations 12 of 15

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box" in order to seed "fluffy" seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The seed mixes will be selected from a list provided by or approved by the BLM, or a specific seed mix will be proposed by Kerr-McGee to the BLM and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Shadescale Mix	Pure Live Seed lbs/acre
Indian Ricegrass	3
(Nezpar)	
Sandberg	0.75
bluegrass	
Bottlebrush	1
squirreltail	
Great Basin	0.5
Wildrye	
Crested	1.5
wheatgrass	
(Ephraim)	
Winterfat	0.25
Shadscale	1.5
Four-wing	0.75
Forage Kochia	0.25
Total	9.5

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage. Soil amendments such as "Sustain" (an organic fertilizer that will be applied at the rate 1,800-2,100 lbs/acre with seed) may also be dry broadcast or applied with hydro-seeding equipment.

Weed Control

All weed management will be done in accordance with the Vernal BLM Surface Disturbance Weed Policy. Noxious weeds will be controlled, as applicable, on project areas. Monitoring and management of noxious and/or invasive weeds of concern will be completed annually until the project is deemed successfully reclaimed by the surface management agency and/or owner according to the Anadarko Integrated Weed Management Plan. Noxious weed infestations will be mapped using a GPS unit and submitted to the BLM with information required in the Vernal BLM Surface Disturbance Weed

NBU 1022-1M1CS / 1022-1M4BS / 1022-1M4CS 1022-1N1BS / 1022-1N1CS / 1022-1N4BS / 1022-1N4CS NBU 1022-1N Pad Surface Use Plan of Operations 13 of 15

Policy. If herbicide is to be applied it will be done according to an approved Pesticide Use Permit (PUP), inclusive of applicable locations. All pesticide applications will be recorded using a Pesticide Application Record (PAR) and will be submitted along with a Pesticide Use Report (PUR) annually prior to Dec. 31.

Monitoring

Monitoring of reclaimed project areas will be completed annually during the growing season and actions to ensure reclamation success will be taken as needed. During the first two growing seasons an ocular methodology will be used to determine the success of the reclamation activities. During the 3rd growing season a 200 point line intercept (quantitative) methodology will be used to obtain basal cover. The goal is to have the reclaimed area reach 30% basal cover when compared to the reference site. If after three growing seasons the area has not reached 30% basal cover, additional reclamation activities may be necessary. Monitoring will continue until the reclaimed area reaches 75% basal cover of desirable vegetation when compared to the reference site. (Green River District Reclamation Guidelines)

All monitoring reports will be submitted electronically to the Vernal BLM in the form of a geo-database no later than March 1st of the calendar year following the data collection.

K. Surface/Mineral Ownership:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

L. Other Information:

Cultural and Paleontological Resources

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BLM.

Resource Reports:

A Class I literature survey was completed in May 2011 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 11-145.

A paleontological reconnaissance survey was completed in June, 2010 and July, 2011 by SWCA Environmental Consultants. For additional details please refer to reports UT11-14314-30, UT11-14314-32 and UT11-14314-33.

Biological field survey was completed in May and June of 2011 by Grasslands Consulting, Inc (GCI). For additional details please refer to reports GCI-517 and GCI 559.

Proposed Action Annual Emissions Tables:

NBU 1022-1M1CS / 1022-1M4BS / 1022-1M4CS 1022-1N1BS / 1022-1N1CS / 1022-1N4BS / 1022-1N4CS NBU 1022-1N Pad Surface Use Plan of Operations 14 of 15

Table 1: Proposed Action Annual Emissions (tons/year) ¹						
Pollutant	Development	Production	Total			
NOx	3.8	0.12	3.92			
CO	2.2	0.11	2.31			
VOC	0.1	4.9	5			
SO_2	0.005	0.0043	0.0093			
PM_{10}	1.7	0.11	1.81			
PM _{2.5}	0.4	0.025	0.425			
Benzene	2.2E-03	0.044	0.046			
Toluene	1.6E-03	0.103	0.105			
Ethylbenzene	3.4E-04	0.005	0.005			
Xylene	1.1E-03	0.076	0.077			
n-Hexane	1.7E-04	0.145	0.145			
Formaldehyde	1.3E-02	8.64E-05	1.31E-02			

¹ Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory						
Comparison						
Species	Production Emissions	2012 Uintah Basin	Proposed Action			
NOx	27.44	16,547	0.17%			
VOC	35	127,495	0.03%			

 $[^]a\,http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html$

Uintah Basin Data

NBU 1022-1M1CS / 1022-1M4BS / 1022-1M4CS 1022-1N1BS / 1022-1N1CS / 1022-1N4BS / 1022-1N4CS

NBU 1022-1N Pad Surface Use Plan of Operations 15 of 15

M. Lessee's or Operators' Representative & Certification:

Gina T. Becker Regulatory Analyst II

Kerr-McGee Oil & Gas Onshore LP

PO Box 173779

Denver, CO 80217-3779

(720) 929-6086

Tommy Thompson General Manager, Drilling

Kerr-McGee Oil & Gas Onshore LP

PO Box 173779

Denver, CO 80217-3779

(720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

October 11, 2011

Gina T.Becker

Date



Joseph D. Johnson 1099 18th Street Ste. 1800 • Denver, CO 80202 720-929-6708 • FAX 720-929-7708 E-MAIL: JOE.JOHNSON @ ANADARKO.COM

September 28, 2011

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11

NBU 1022-1M4BS

T10S-R22E

Section 1: SESW/SWSW Surface: 1238' FSL, 2093' FWL Bottom Hole: 416' FSL, 819' FWL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 1022-1M4BS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

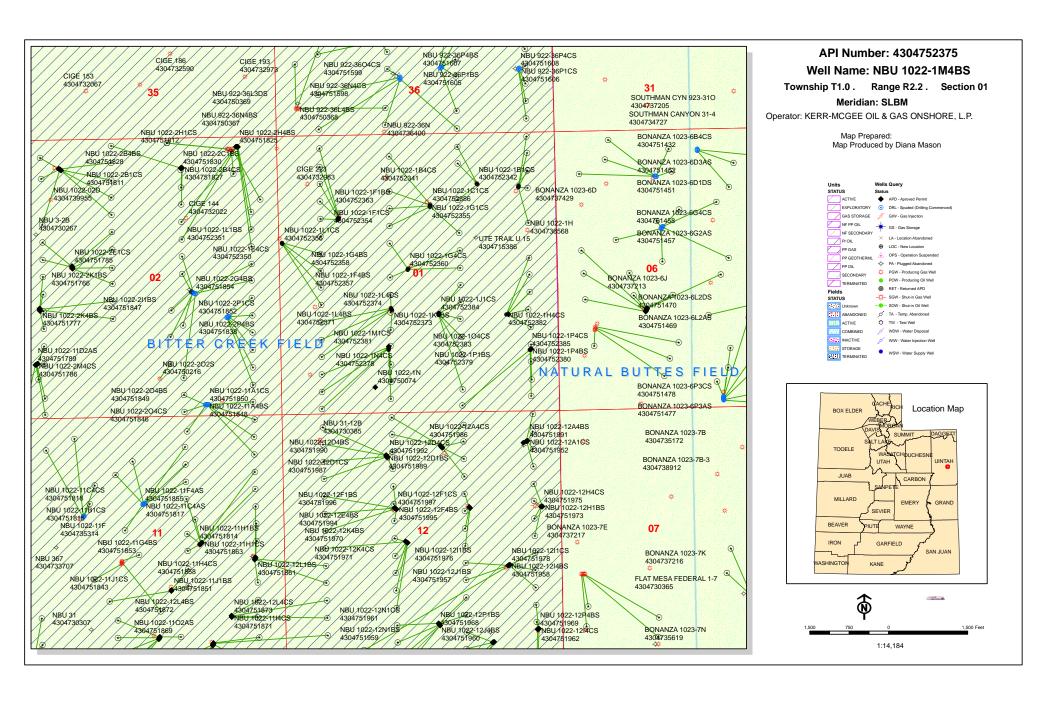
Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joseph D. Johnson Landman

RECEIVED: February 02, 2012



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

February 10, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2011 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2011 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

WELL PAD - NBU 1022-25D

43-047-52295 NBU 1022-25C2DS Sec 25 T10S R22E 0653 FNL 0339 FWL BHL Sec 25 T10S R22E 0488 FNL 1933 FWL 43-047-52296 NBU 1022-25C3DS Sec 25 T10S R22E 0730 FNL 0314 FWL BHL Sec 25 T10S R22E 1147 FNL 1931 FWL 43-047-52297 NBU 1022-25C3AS Sec 25 T10S R22E 0732 FNL 0324 FWL BHL Sec 25 T10S R22E 0820 FNL 1938 FWL 43-047-52298 NBU 1022-25D2DS Sec 25 T10S R22E 0650 FNL 0319 FWL (BH) BHL Sec 25 T10S R22E 0485 FNL 0630 FWL 43-047-52299 NBU 1022-25F2AS Sec 25 T10S R22E 0652 FNL 0329 FWL BHL Sec 25 T10S R22E 1482 FNL 1955 FWL 43-047-52300 NBU 1022-25D3DS Sec 25 T10S R22E 0727 FNL 0295 FWL BHL Sec 25 T10S R22E 1152 FNL 0630 FWL 43-047-52301 NBU 1022-25D3AS Sec 25 T10S R22E 0729 FNL 0305 FWL BHL Sec 25 T10S R22E 0822 FNL 0631 FWL 43-047-52302 NBU 1022-25E2AS Sec 25 T10S R22E 0648 FNL 0309 FWL BHL Sec 25 T10S R22E 1479 FNL 0631 FWL WELL PAD - NBU 1022-1A

43-047-52335 NBU 1022-1A1BS Sec 01 T10S R22E 1030 FNL 0663 FEL

BHL Sec 01 T10S R22E 0099 FNL 0498 FEL

RECEIVED: February 10, 2012

API #	WE:	LL NAME			LO	CATIO	N		
(Proposed PZ	WASA	ATCH-MESA VERD	E)						
43-047-52336	NBU	1022-1A1CS BHL							
43-047-52337	NBU	1022-1A4BS BHL							
43-047-52338	NBU	1022-1H1CS BHL			T10S T10S				
		1022-1A4CS BHL							
WELL PAD - N	BU 10	022-1B							
43-047-52339	NBU	1022-1B1BS BHL			T10S T10S				
43-047-52341	NBU	1022-1B4CS BHL			T10S T10S				
43-047-52342	NBU	1022-1B1CS BHL							
WELL PAD - N	BU 10	022-1E1							
		1022-1D1BS			T10S T10S				
43-047-52344	NBU	1022-1D1CS BHL			T10S T10S				
43-047-52345	NBU	1022-1D4BS BHL			T10S T10S				
43-047-52346	NBU	1022-1D4CS BHL			T10S T10S				
43-047-52347	NBU	1022-1E1BS BHL			T10S T10S				
					T10S T10S				
WELL PAD - N	BU 10	022-1E3							
43-047-52349	NBU	1022-1E4BS BHL			T10S T10S				
43-047-52350	NBU	1022-1E4CS BHL			T10S T10S				
43-047-52351	NBU	1022-1L1BS BHL			T10S T10S				
43-047-52356 WELL PAD - N					T10S T10S				
			~	0 -	m10*	D00=	0.5.0.0	 0466	
43-047-52352	NBU	1022-1K1BS BHL			T10S T10S				

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API #	WE:	LL NAME			LO	CATIO	N		
(Proposed PZ	WASA	ATCH-MESA VERD	Ε						
43-047-52357	NBU	1022-1F4BS BHL			T10S T10S				
43-047-52358	NBU	1022-1G4BS BHL			T10S T10S				
43-047-52360	NBU	1022-1G4CS BHL							
WELL PAD - N	RTT 10	022-1G							
		-	0	0.1	m1 0 0	DOOR	1266	 0054	
43-047-52353	NBU	1022-1C4CS BHL			T10S T10S				
43-047-52354	NBU	1022-1F1CS BHL			T10S T10S				
43-047-52355	NBU	1022-1G1CS BHL			T10S T10S				
43-047-52363	NBU	1022-1F1BS BHL			T10S T10S				
		1022-1C1CS BHL							
WELL PAD - N									
43-047-52359	NBU	1022-1J1BS BHL			T10S T10S				
43-047-52362	NBU	1022-101BS BHL			T10S T10S				
43-047-52366	NBU	1022-1J4CS BHL							
43-047-52367	NBU	1022-104BS BHL			T10S T10S				
43-047-52384	NBU	1022-1J1CS BHL			T10S T10S				
	D	200 1**							
WELL PAD - N	-								
43-047-52361	NBU	1022-1M1BS BHL			T10S T10S				
43-047-52365	NBU	1022-1K1CS BHL			T10S T10S				
43-047-52370	NBU	1022-1K4CS BHL			T10S T10S				
43-047-52371	NBU	1022-1L4BS BHL			T10S T10S				

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API # WELL NAME LOCATION (Proposed PZ WASATCH-MESA VERDE 43-047-52373 NBU 1022-1K4BS Sec 01 T10S R22E 1957 FSL 2162 FWL BHL Sec 01 T10S R22E 1910 FSL 2135 FWL 43-047-52374 NBU 1022-1L4CS Sec 01 T10S R22E 1975 FSL 2154 FWL BHL Sec 01 T10S R22E 1413 FSL 0819 FWL WELL PAD - NBU 1022-11 BHL Sec 01 T10S R22E 1579 FSL 0492 FEL 43-047-52368 NBU 1022-1I1BS Sec 01 T10S R22E 1826 FSL 0937 FEL BHL Sec 01 T10S R22E 2576 FSL 0492 FEL BHL Sec 01 T10S R22E 2243 FSL 0492 FEL BHL Sec 01 T10S R22E 2410 FNL 0492 FEL WELL PAD - NBU 1022-1N 43-047-52372 NBU 1022-1M4CS Sec 01 T10S R22E 1228 FSL 2092 FWL BHL Sec 01 T10S R22E 0098 FSL 0810 FWL 43-047-52375 NBU 1022-1M4BS Sec 01 T10S R22E 1238 FSL 2093 FWL BHL Sec 01 T10S R22E 0416 FSL 0819 FWL BHL Sec 01 T10S R22E 0914 FSL 2133 FWL 43-047-52377 NBU 1022-1N4BS Sec 01 T10S R22E 1208 FSL 2091 FWL BHL Sec 01 T10S R22E 0581 FSL 2132 FWL 43-047-52378 NBU 1022-1N4CS Sec 01 T10S R22E 1198 FSL 2090 FWL BHL Sec 01 T10S R22E 0262 FSL 2124 FWL BHL Sec 01 T10S R22E 0748 FSL 0819 FWL WELL PAD - NBU 1022-1P 43-047-52379 NBU 1022-1P1BS Sec 01 T10S R22E 1168 FSL 0485 FEL BHL Sec 01 T10S R22E 1246 FSL 0491 FEL 43-047-52380 NBU 1022-1P4BS Sec 01 T10S R22E 1154 FSL 0500 FEL BHL Sec 01 T10S R22E 0582 FSL 0491 FEL

BHL Sec 01 T10S R22E 0106 FSL 1816 FEL

BHL Sec 01 T10S R22E 0270 FSL 0503 FEL

Page 4

Page 5

The NBU 1022-25D2DS, 43-047-52298, is being permitted to target productive horizons below the unitized zone of the Natural Buttes Unit as defined in Section 3 of said agreement. We recommend not approving commingling of production with these zones and the unitized zones of the Natural Buttes Unit until this matter has been resolved by the BLM's Utah State Office.

This office has no other objection to permitting the wells at this time.

Michael L. Coulthard Management, ou=Branch of Minerals, email=Michael Coulthardelmgov, c=US

Digitally signed by Michael L. Coulthard DN: cn=Michael L. Coulthard, o=Bureau of Land Date: 2012.02.10 08:36:59 -07'00'

bcc: File - Natural Buttes Unit Division of Oil Gas and Mining Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:2-10-12

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED : 2/3/2012	API NO. ASSIGNED:	43047523750000

WELL NAME: NBU 1022-1M4BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6086

CONTACT: Gina Becker

PROPOSED LOCATION: SESW 01 100S 220E Permit Tech Review:

> SURFACE: 1238 FSL 2093 FWL **Engineering Review:**

> BOTTOM: 0416 FSL 0819 FWL **Geology Review:**

COUNTY: UINTAH

LATITUDE: 39.97410 LONGITUDE: -109.39036 UTM SURF EASTINGS: 637454.00 NORTHINGS: 4426123.00

FIELD NAME: NATURAL BUTTES LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-010953 PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 1 - Federal **COALBED METHANE: NO**

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

✓ PLAT R649-2-3.

Unit: NATURAL BUTTES Bond: FEDERAL - WYB000291

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Drilling Unit Oil Shale 190-13

Board Cause No: Cause 173-14 Water Permit: 43-8496

Effective Date: 12/2/1999 **RDCC Review:**

Siting: Suspends General Siting Fee Surface Agreement

✓ Intent to Commingle R649-3-11. Directional Drill

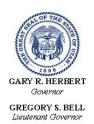
Commingling Approved

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 4 - Federal Approval - dmason 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason

API Well No: 43047523750000



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 1022-1M4BS
API Well Number: 43047523750000
Lease Number: UTU-010953
Surface Owner: FEDERAL

Approval Date: 2/15/2012

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil

API Well No: 43047523750000

shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
 - Report of Water Encountered (Form 7) due within 30 days after completion
 - Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCT 2 0 2011

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL	OP BLANDERNAL I	ITAL
DRILL		A 1 5'41

5. Lease Serial No. UTU010953

		and the second second second	o. II Indian, Allottee or	Tribe Name
1a. Type of Work: DRILL REENTER			-	
			7. If Unit or CA Agreer UTU63047A	nent, Name and No.
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ C	Other D.S	ingle Zone Multiple Zone	8. Lease Name and Wel NBU 1022-1M4BS	II No.
/ Name of One and				
3a. Address	BECKER@ANADARKO	O.COM	9. API Well No. 43.047.50	
P.O. BOX 173779	3b. Phone No. (inc	clude area code)	10. Field and Pool, or Ex	2375
DENVER, CO 80202-3779 4. Location of Well (Report location clearly and in the control of the co	Fx: 720-929-70	086 086	NATURAL BUTT	kploratory ES
For vocation clearly and in accord	lance with any State req	quirements.*)	11 Sec. T. D. M. 75	
At surface SESW 1238FSL 2093FW	L 39.974093 N Lat	100 200200 144	11. Sec., T., R., M., or B	
At proposed prod. zone SWSW 416FSL 819FWL:	39.971838 N Lat 1	09.394753 W Lon	Sec 1 T10S R22E	Mer SLB
14. Distance in miles and direction from nearest town or post APPROXIMATELY 46 MILES SOUTH OF VER			12 C	
15. Distance from proposed location to nearest property or lease line ft. (Also to persent dries with the property of the prop			12. County or Parish UINTAH	13. State UT
1 (2 LISO to Heales) (IFIG limit line if ony)	16. No. of Acres in	Lease	17. Spacing Unit dedicate	
416	640.00		pusmig omit dedicate	d to this well
18. Distance from proposed location to nearest well, drilling,	19. Proposed Depth		<u> </u>	
completed, applied for, on this lease, ft.	1		20. BLM/BIA Bond No. o	on file
21. Elevations (Show whether DF, KB, RT, GL, etc.	8769 MD 8522 TVD		WYB000291	
5113 GL	22. Approximate dat 03/01/2012	e work will start	23. Estimated duration 60-90 DAYS	
	24 Att	achments		
The following, completed in accordance with the requirements of Well plat certified by a registered surround.				
. Well plat certified by a registered surveyor.	Onshore Oil and Gas (
		4. Bond to cover the operations Item 20 above).	unless covered by an existi	ing hand on file (see
A Surface Use Plan (if the location is on National Forest Syste SUPO shall be filed with the appropriate Forest Service Offi	m Lands, the	1.5. Operator certification		
	ce).	6. Such other site specific infor authorized officer.	mation and/or plans as may	be required by the
25. Signature	Name (Printed/Typed)	L		, , , ,
(Electronic Submission)	GINA T BECKE	R Ph: 720-929-6086		Date
Title REGULATORY ANALYST II				10/12/2011
Approved by (Signature)	Name (Printed/T. 1)			
Jun Reman	rame (i mited/ i yped)	Jerry Kenczka		Date
// // rispisiggit Field Manager	Office			JUN 1 9 2012
Lands & Mineral Passures	VEI	RNAL FIELD OFFICE		
opplication approval does not warrant or certify the applicant holds erations thereon. Onditions of approval, if any, are attached.	s legal or equitable title	to those rights in the subject lease	Which would antitle d	
				
tle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212 mal	re it a arima fa		·	
tle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, malates any false, fictitious or fraudulent statements or representation	is as to any matter within	son knowingly and willfully to ma in its jurisdiction.	ke to any department or age	ncy of the United
dditional Operator Remarks (see next page)				
Electronic Submission	#120070 · · - · · · ·	1 4	R	ECEIVED
For KERR-MC	GEE OIL & GAS O	by the BLM Well Informati NSHORE, sent to the Ver	ion System	
411			naı	1 0 3 2012

NOTICE OF APPROVAL

DIV. OF OIL, GAS & MINING

1

JUL 0 3 2012

CONDITIONS OF APPROVAL ATTACHED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

API No:

Kerr McGee Oil & Gas Onshore

170 South 500 East

NBU 1022-1M4BS

43-047-52375

Location:

SESW, Sec. 1, T10S, R22E

Lease No:

Agreement: Natural Buttes

OFFICE NUMBER:

(435) 781-4400

UTU-010953

OFFICE FAX NUMBER:

(435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

-	Forty-Eight (48) hours prior to construction of location and access roads.
-	Prior to moving on the drilling rig.
-	Twenty-Four (24) hours prior to spudding the well.
-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov
-	Twenty-Four (24) hours prior to initiating pressure tests.
_	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.
	-

Page 2 of 8 Well: NBU 1022-1M4BS 6/15/2012

SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
 work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
 mitigation may be necessary for the discovered paleontologic material before construction can
 continue.

Site Specific COA's

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horse power must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower-hour.
- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour.
- The following would be used as standard operating procedures: Green completion or controlled VOC emissions methods with 90% efficiency for Oil or Gas Atmospheric Storage Tanks, VOC Venting controls or flaring, Glycol Dehydration and Amine Unites, Well Completion, Re-Completion, Venting, and Planned Blowdown Emissions.
- All reclamation will comply with the Green River Reclamation Guidelines.
- All vehicles and equipment shall be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.
- All disturbance areas shall be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established.
- Noxious and invasive weeds will be controlled throughout the area of project disturbance.
- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an
 integrated pest management program is applicable, coordination has been undertaken with the
 state and local management program (if existing). A copy of the pest management plan will be
 submitted for each project.
- A pesticide use proposal (PUP) will be obtained for the project.

Page 3 of 8 Well: NBU 1022-1M4BS 6/15/2012

- A permitted paleontologist is to be present to monitor construction at well pads CIGE 31 (AKA NBU 1022-1E1) and NBU 1022-1I during all surface disturbing actives: examples include the following building of the well pad, access road, and pipelines.
- The best method to avoid entrainment is to pump from an off-channel location one that does not connect to the river during high spring flows. An infiltration gallery constructed in a BLM and Service approved location is best.
- If the pump head is located in the river channel where larval fish are known to occur, the following measures apply:
 - a. do not situate the pump in a low-flow or no-flow area as these habitats tend to concentrate larval fishes;
 - b. limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish may be present (April 1 to August 31); and
 - c. limit the amount of pumping, to the greatest extent possible, during the pre-dawn hours as larval drift studies indicate that this is a period of greatest daily activity.
- Screen all pump intakes with 3/32 inch mesh material.
- Approach velocities for intake structures will follow the National Marine Fisheries Service's
 document "Fish Screening Criteria for Anadromous Salmonids". For projects with an in-stream
 intake that operate in stream reaches where larval fish may be present, the approach velocity will
 not exceed 0.33 feet per second (ft/s).
- Report any fish impinged on the intake screen to the Service (801.975.3330) and the Utah Division of Wildlife Resources:

Northeastern Region 152 East 100 North, Vernal, UT 84078 Phone: (435) 781-9453

Kerr McGee can only use the following water source:
 Permit # 49-2307 JD Field Services Green River-Section 15, T2N, R22E

The following measures are required by and have been committed to by Anadarko for all areas where surface disturbing activities cannot be avoided by the required 300 foot buffer from identified Uinta Basin hookless cactus individuals.

- Silt fencing will be used to protect populations within 300 feet of surface disturbing activities that are downslope or downwind of the surface disturbance
- A qualified botanist will be on site to monitor the surface-disturbing activities.
- Dust abatement will occur and will be done using only water.
- All cacti within 300 feet will be flagged immediately prior to surface-disturbing activities are completed.
- Pipelines will be located to the far side of the ROW to maximize distance from cacti.

Page 4 of 8 Well: NBU 1022-1M4BS 6/15/2012

 Project personnel associated with construction activities would be instructed to drive a speed limit of 15 miles per hour on unpaved roads and to remain on the existing roads and approved ROW at all times.

To maintain compliance with current cactus survey protocols, the following measures will be required.

- If construction does not occur within 4 years of the original survey date, new 100% clearance surveys will be required.
- Prior to construction within 4 years of the original survey date, a spot check survey will be required during the year of construction. KMG and their respective 3rd party surveyor will refer to the current Sclerocactus Spot Check Survey Methods, to determine site specific survey distances and intensity levels.
- Spot check reports will be reported to the BLM and the US Fish and Wildlife Service.
- Construction will not commence until written approval is received from the BLM.

Discovery Stipulation: Reinitiation of section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for Pariette cactus or Uinta Basin hookless cactus is anticipated as a result of project activities.

Page 5 of 8 Well: NBU 1022-1M4BS 6/15/2012

DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- A copy of Kerr McGee's Standard Operating Practices (SOP version: dated 7/17/08 and approved 7/28/08) shall be on location.
- Surface casing cement shall be brought to surface.
- Production casing cement shall be brought 200' up and into the surface casing.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is
 encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal
 Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each

Page 6 of 8 Well: NBU 1022-1M4BS 6/15/2012

encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
 Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to BLM_UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 7 of 8 Well: NBU 1022-1M4BS 6/15/2012

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
 notified when it is placed in a producing status. Such notification will be by written communication
 and must be received in this office by not later than the fifth business day following the date on
 which the well is placed on production. The notification shall provide, as a minimum, the following
 informational items:
 - o Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

Page 8 of 8 Well: NBU 1022-1M4BS 6/15/2012

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
 Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
 future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
 BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
 hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall
 be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
 lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
 suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
 obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
 equipment shall be removed from a well to be placed in a suspended status without prior approval
 of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
 approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
 of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

SUBMIT AS EMAIL

Print Form

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL	<u> </u>	
Submitted By J. Scharnows	ske Phone Number 720.929.6304	
Well Name/Number NBU 10		
-	Township 10S Range 22E	
Lease Serial Number UTU0		
API Number 4304752375		
Spud Notice – Spud is the out below a casing string.	initial spudding of the well, not dri	lling
Date/Time <u>08/23/2012</u>	09:00 HRS AM PM	
Casing — Please report times. ✓ Surface Casing Intermediate Casing Production Casing Liner Other	e casing run starts, not cementing	
Date/Time <u>09/16/2012</u>	08:00 HRS AM PM	
BOPE Initial BOPE test at su BOPE test at intermed 30 day BOPE test Other	urface casing point AUG :	EIVED 2 1 2012 Gas & Mining
Date/Time	AM PM	
Remarks ESTIMATED DATE AND TIM	ME. PLEASE CONTACT KENNY GATHINGS AT	
435.828.0986 OR LOVEL YOUNG AT 435.	.781.7051	

Sundry Number: 29351 API Well Number: 43047523750000

	STATE OF UTAH		FORM 9
1	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-010953
SUNDR	Y NOTICES AND REPORTS OF	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly de- reenter plugged wells, or to drill horizonta n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-1M4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047523750000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1238 FSL 2093 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 11 Township: 10.0S Range: 22.0E Meridian	: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
✓ SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud: 8/23/2012	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
MIRU TRIPLE A BU RAN 14" 36.7# SC	COMPLETED OPERATIONS. Clearly show all p CKET RIG. DRILLED 20" CONDU HEDULE 10 CONDUCTOR PIPE X. SPUD WELL LOCATION ON A 14:00 HRS.	pertinent details including dates, of JCTOR HOLE TO 40'.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 30, 2012
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulartory Analyst	
SIGNATURE N/A		DATE 8/29/2012	

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address:

P.O. Box 173779

city DENVER

state CO zip 80217

Phone Number: (720) 929-6304

Well 1

OII 1					·		·
API Number	Well	Name	QQ Sec Twp Rng County			County	
4304752378	NBU 1022-1N4CS		SESW	SESW 1 10S			UINTAH
Action Code	Current Entity Number	New Entity Number	S	Spud Date		•	ity Assignment Effective Date
В	9999	2900	8	3/23/201	2	81	36 12012
	<u> </u>		Ω.	-	· · ·		

Comments:

MIRU TRIPLE A BUCKET RIG.

BHT: SERM

SPUD WELL LOCATION ON 8/23/2012 AT 07:30 HRS.

WSMVD

Well 2

API Number	Woll	Name	QQ	Sec	Twp	Rng	County
4304752376	NBU 1022-1N	<u> </u>	SESW	1	108	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	s	pud Da	te		tity Assignment Effective Date
В	9999	2900	8	3/23/201		81	30 12012
Comments: MIDI	TDIDLE A DLICKET D	IC	BH	L: 8	esu	>	

MIRU TRIPLE A BUCKET RIG.

SPUD WELL LOCATION ON 8/23/2012 AT 11:00 HRS.

WSMVD

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304752375	NBU 1022-1M4BS		SESW	1	108	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			ity Assignment iffective Date	
В	9999	2900	8	3/23/201	2	81	30/2012

Comments:

MIRU TRIPLE A BUCKET RIG.

SPUD WELL LOCATION ON 8/23/2012 AT 14:00 HRS.

BHL: SWSW USMVD

ACT	ION	CO	DES:

A - Establish new entity for new well (single well only)

B - Add new well to existing entity (group or unit well)

Re-assign well from one existing entity to another existing entity

 Re-assign well from one existing entity to a new entity E - Other (Explain in 'comments' section)

JAIME SCHARNOWSKE Name (Please Print)

Jain Schaumusk

Signature

RECEIVED REGULATORY ANALYST

8/29/2012 Date

Title

AUG 3 0 2012

Sundry Number: 30383 API Well Number: 43047523750000

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCE		FORM 9		
ı	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-010953				
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:				
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	posals to drill new wells, significantly or reenter plugged wells, or to drill horizor n for such proposals.	deepen existing wells below ntal laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-1M4BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047523750000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1238 FSL 2093 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SESW Section: 0	HP, RANGE, MERIDIAN: 11 Township: 10.0S Range: 22.0E Meridi	an: S	STATE: UTAH		
11. CHECI	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION		
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
10/2/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
No Activity for the	COMPLETED OPERATIONS. Clearly show a ne month of September 2012	2. Well TD at 2,472.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 02, 2012		
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBI 720 929-6857	ER TITLE Regulatory Analyst II			
SIGNATURE N/A		DATE 10/2/2012			

Sundry Number: 31535 API Well Number: 43047523750000

	STATE OF UTAH DEPARTMENT OF NATURAL RESOUR			FORM 9		
		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-010953				
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
	posals to drill new wells, significantly reenter plugged wells, or to drill horiz n for such proposals.			7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: NBU 1022-1M4BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047523750000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 8021		IE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5MATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1238 FSL 2093 FWL				COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 11 Township: 10.0S Range: 22.0E Meri	idian: S		STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICA	ATE NA	TURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION			TYPE OF ACTION			
	ACIDIZE	☐ AL	TER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	□ сн	ANGE TUBING	CHANGE WELL NAME		
	CHANGE WELL STATUS	□ со	MMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ FR	ACTURE TREAT	NEW CONSTRUCTION		
	OPERATOR CHANGE	☐ PL	UG AND ABANDON	PLUG BACK		
SPUD REPORT	PRODUCTION START OR RESUME	☐ RE	CLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION		DETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR		NT OR FLARE	WATER DISPOSAL		
✓ DRILLING REPORT Report Date:	WATER SHUTOFF		SI TA STATUS EXTENSION	APD EXTENSION		
11/2/2012		si	TA STATUS EXTENSION			
	WILDCAT WELL DETERMINATION	ОТ	HER	OTHER:		
No Activity for	the month of October 2012	2. We	II TD at 2,487.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY November 02, 2012		
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUM 720 929-6857		TITLE Regulatory Analyst II			
SIGNATURE			DATE			
N/A		- 1	11/2/2012			

Sundry Number: 32554 API Well Number: 43047523750000

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCE		FORM 9		
ı	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-010953				
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:				
	posals to drill new wells, significantly reenter plugged wells, or to drill horizo n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-1M4BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047523750000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 73779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1238 FSL 2093 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: D1 Township: 10.0S Range: 22.0E Merid	dian: S	STATE: UTAH		
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION		
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
11/29/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show	all pertinent details including dates.	<u> </u>		
FINISHED DR PRODUCTION CA DETAILS OF CASIN	RILLING TO 8,845' ON 11/28/2 SING. RELEASED PIONEER G AND CEMENT WILL BE INCI EPORT. WELL IS WAITING ON ACTIVITIES	2012. CEMENTED 54 RIG ON 11/29/2012. LUDED WITH THE WELL	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY November 30, 2012		
NAME (PLEASE PRINT)	PHONE NUMB	BER TITLE			
Lindsey Frazier	720 929-6857	Regulatory Analyst II			
SIGNATURE N/A		DATE 11/30/2012			

State of Utah - Notification Form

Operator <u>Anadarko Petroleum</u> Rig Name/# <u>PIONEER 54</u>
Submitted By <u>KENNY MORRIS</u> Phone Number <u>435-790-2921</u>
Well Name/Number <u>NBU 1022-1M4BS</u>
Qtr/Qtr <u>SE/SW</u> Section <u>1</u> Township <u>10S</u> Range 22E
Lease Serial Number <u>UTU010953</u>
API Number 43047523750000

<u>Casing</u> – Time casing run starts, not cementing	times.
Production Casing Other	
Date/Time <u>11/28/2012</u> <u>08:00</u> AM	PM 🗌
BOPE Initial BOPE test at surface casing point Other Date/Time AM PM	
Rig Move Location To:	
Date/Time AM _ PM _	RECEIVED NOV 2 6 2012
Remarks <u>5TH WELL ON PAD</u>	DIV. OF OIL, GAS & MINING

Sundry Number: 33400 API Well Number: 43047523750000

	STATE OF UTAH				FORM 9	
ı	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		6	5.LEASE UTU-0	DESIGNATION AND SERIAL NUMBER: 10953	
SUNDRY NOTICES AND REPORTS ON WELLS				6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.			1	r CA AGREEMENT NAME: AL BUTTES	
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: NBU 1022-1M4BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047523750000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021		ONE NUMBER: 720 929-6	1	and POOL or WILDCAT: AL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1238 FSL 2093 FWL				COUNTY		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SESW Section: 0	IIP, RANGE, MERIDIAN: 11 Township: 10.0S Range: 22.0E Meric	lian: S	S	STATE: UTAH		
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE N	ATURE OF NOTICE, REPOR	T, OR O	THER DATA	
TYPE OF SUBMISSION			TYPE OF ACTION			
	ACIDIZE		ALTER CASING		CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING		CHANGE WELL NAME	
	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS		CONVERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ F	FRACTURE TREAT		NEW CONSTRUCTION	
	OPERATOR CHANGE	☐ F	PLUG AND ABANDON		PLUG BACK	
SPUD REPORT	PRODUCTION START OR RESUME	□ F	RECLAMATION OF WELL SITE		RECOMPLETE DIFFERENT FORMATION	
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL		TEMPORARY ABANDON	
	TUBING REPAIR		/ENT OR FLARE	П	WATER DISPOSAL	
✓ DRILLING REPORT Report Date:	WATER SHUTOFF		SI TA STATUS EXTENSION	П	APD EXTENSION	
1/2/2013	WILDCAT WELL DETERMINATION			OTUE	n. D. EXTENSION	
			OTHER	OTHE	iri:	
	completed operations. Clearly show the month of December 201			oi FOI	Accepted by the Utah Division of I, Gas and Mining R RECORD ONLY anuary 03, 2013	
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUME 720 929-6857	BER	TITLE Regulatory Analyst II			
SIGNATURE N/A			DATE 1/2/2013			

Sundry Number: 34331 API Well Number: 43047523750000

	STATE OF UTAH			FORM 9
ι	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-010953
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	posals to drill new wells, significantly reenter plugged wells, or to drill horizon n for such proposals.	deepen existing wells ontal laterals. Use APP	below LICATION	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: NBU 1022-1M4BS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047523750000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 7 3779	720 929-6	9. FIELD and POOL or WILDCAT: 5MATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1238 FSL 2093 FWL				COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SESW Section: 0	HP, RANGE, MERIDIAN: 11 Township: 10.0S Range: 22.0E Meri	dian: S		STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTION	CE, REPOF	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF A	CTION	
	ACIDIZE	ALTER CASING		CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING		CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING F	ORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT		NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON		PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SIT	TE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WEL	.L	☐ TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE		WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION		APD EXTENSION
2/4/2013	WILDCAT WELL DETERMINATION	OTHER		OTHER:
				<u>'</u>
	COMPLETED OPERATIONS. Clearly show	-	ding dates, c	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY February 08, 2013
NAME (PLEASE PRINT)	PHONE NUMI	BER TITLE		
Lindsey Frazier	720 929-6857	Regulatory Anal	lyst II	
SIGNATURE N/A		DATE 2/4/2013		

RECEIVED: Feb. 04, 2013

Sundry Number: 35242 API Well Number: 43047523750000

	STATE OF UTAH				FORM 9	
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING					SIGNATION AND SERIAL NUMBER: 53	
SUNDRY NOTICES AND REPORTS ON WELLS					ALLOTTEE OR TRIBE NAME:	
	posals to drill new wells, significantl reenter plugged wells, or to drill horiz n for such proposals.			7.UNIT or CA NATURAL E	A AGREEMENT NAME: BUTTES	
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: NBU 1022-1M4BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMB 43047523		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 802		NE NUMBER: 720 929-6	9. FIELD and 5MATURAL B	POOL or WILDCAT:	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1238 FSL 2093 FWL				COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SESW Section: 0	HIP, RANGE, MERIDIAN: 01 Township: 10.0S Range: 22.0E Mer	ridian: \$	3	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDIC.	ATE N	ATURE OF NOTICE, REPOR	T, OR OTH	ER DATA	
TYPE OF SUBMISSION			TYPE OF ACTION			
	ACIDIZE		ALTER CASING	☐ cas	ING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	СНА	NGE WELL NAME	
	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	☐ con	IVERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ F	RACTURE TREAT	□ NEW	CONSTRUCTION	
	OPERATOR CHANGE	F	PLUG AND ABANDON	PLU	G BACK	
SPUD REPORT	PRODUCTION START OR RESUME	□ F	RECLAMATION OF WELL SITE	REC	OMPLETE DIFFERENT FORMATION	
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL	□ тем	IPORARY ABANDON	
	TUBING REPAIR		/ENT OR FLARE	☐ waī	TER DISPOSAL	
DRILLING REPORT Report Date:	WATER SHUTOFF		SI TA STATUS EXTENSION	☐ APD	EXTENSION	
3/4/2013	WILDCAT WELL DETERMINATION	\Box	OTHER	OTHER:	ĺ	
The subject wel	COMPLETED OPERATIONS. Clearly shown of was placed on production of the submitted report.	n on	02/28/2013. The	epths, volume Acc Uta Oil, C	es, etc. cepted by the sh Division of Gas and Mining RECORD ONLY och 05, 2013	
NAME (PLEASE PRINT) Laura Abrams	PHONE NUN 720 929-6356	IBER	TITLE Regulatory Analyst II			
SIGNATURE	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		DATE			
N/A			3/4/2013			

Sundry Number: 35193 API Well Number: 43047523750000

	STATE OF UTAH		FORM 9			
ı	DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-010953			
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	posals to drill new wells, significantly reenter plugged wells, or to drill horizo n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-1M4BS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047523750000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 73779 720 929-	9. FIELD and POOL or WILDCAT: 9-65MATURAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1238 FSL 2093 FWL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 11 Township: 10.0S Range: 22.0E Merid	ian: S	STATE: UTAH			
11. CHECI	K APPROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION			
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
3/4/2013	WILDCAT WELL DETERMINATION	OTHER	OTHER:			
42 DESCRIPE PROPOSED OR	COMPLETED OPERATIONS. Clearly show	all newtiness details including dates	denthe valumes etc			
	d completing the well. Well T	_	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY March 06, 2013			
NAME (PLEASE PRINT) Laura Abrams	PHONE NUMB 720 929-6356	ER TITLE Regulatory Analyst II				
SIGNATURE		DATE				
N/A		3/4/2013				

Form 3160-4

UNITED STATES

FORM APPROVED

(August 2007)	DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT												OMB No. 1004-0137 Expires: July 31, 2010			
	WELL (COMPL	ETION C	R RE	COM	IPLETI	ON RE	PORT	AND I	LOG				ease Serial ITU01095		· · · · · · · · · · · · · · · · · · ·
la. Type o	f Well f Completion	Oil Well	☑ Gas lew Well	Well Wo:	Dr rk Over	_	Other eepen	☐ Plus	≥ Back	ПD	iff. Re	esvr.	6. If	Indian, All	ottee or	r Tribe Name
		Othe	er			·							7. U	nit or CA A	Agreem	ent Name and No.
	MĈGEE OIL		ONSHORE	-Mail: li	ndsey.	Contact: L .frazier@	INDSEY anadark	A FRAZ o.com	ZIER					ease Name IBU 1022-		
3. Address	PO BOX 7 DENVER,		217					Phone No 720-92	o. (includ 9-6857	e area o	code)	.,	9. A	PI Well No		43-047-52375
	n of Well (Re		-				•)*				10. I	ield and Po	ool, or I	Exploratory ES
	ace SESW					•	.390208	W Lon					11. S	Sec., T., R.,	M., or	Block and Survey OS R22E Mer SLB
	orod interval i depth SW	-	SL 825FW		rol o	ZIFVVL						Ì	12. (County or F		13. State
14. Date S 08/23/2	pudded		15. D	ate T.D. /28/201		ed		□ D &	Complet A 🔀 8/2013	ed Ready	to Pr	od.		Elevations (DF, KI 30 KB	UT 3, RT, GL)*
18. Total I	Depth:	MD TVD	8845 8552		19. P	lug Back T	Г.D.:	MD TVD	87	787 194		20. Dep	th Bri	dge Plug S		MD TVD
21. Type E	lectric & Oth	er Mecha		un (Sub	mit cop	y of each)		140		22. V		ell cored ST run?		No No	☐ Yes	(Submit analysis) (Submit analysis)
23 Casing a	nd Liner Reco	ord (Rene	ort all strings	set in u	(all)					Ī	Directi	ST run? onal Sur	vey?	No No		(Submit analysis)
Hole Size	Size/G	` -	Wt. (#/ft.)	To	- ´ T	Bottom	Stage C	Cementer	No. c	of Sks.	&	Slurry	Vol.			
20.000		000 STL		(MI)) 0	(MD)	+-	epth	Туре	of Cem	_	(BBI	<u></u>	Cement	l'op*	Amount Pulled
11.000		25 IJ-55	36.7 28.0		0	2458	+				28 1150				0	
7.875		500 I-80	11.6		0	883					1416		1550			
		-			_		-									
													_			
24. Tubing	Record								1					<u> </u>		
Size 2.375	Depth Set (M	ID) P 8084	acker Depth	(MD)	Size	Dep	th Set (M	(D) F	acker De	pth (M	D)	Size	De	pth Set (M	D)	Packer Depth (MD)
	ng Intervals	000-1				26	. Perfora	tion Reco	ord				<u></u>			
F	ormation		Тор		Botte	om	Pe	rforated	Interval			Size	1	lo. Holes		Perf. Status
<u>A)</u> B)	MESAVE	RDE	 .	7339		8635			7339 T	O 863	5	0.36	30	120	OPE	N
C)											_		+-		 -	
D)															<u> </u>	
	racture, Treat		ment Squeeze	e, Etc.												WED -
	Depth Interva		635 PUMP 6	726 BBI	_S SLIC	K H2O AN	ND 142,33		mount and 0/50 OTTA			aterial		ΛDD	0.4	The same County
															U]	2013
													$\hat{\ell}_{i}$	n oron	. विश्वस्य	W 600
28. Product	tion - Interval	A													-s owness	€ Majayo
Date First Produced	Test Date	Hours Tested	Test Production	Oil Gas Water Oil Gravity Gas						Gas Gravity		Producti	on Method			
02/28/2013	03/05/2013	24		0.0		3279.0	0.0				Jarity			FLOWS FROM WELL		
Choke Size	Tbg. Press. Flwg. 1776	Csg. Press.	24 Hr. Rate	Oil BBL	Ga M	is CF	Water BBL	Gas:C Ratio		'	Well Sta	tus				
20/64	SI Interior	2144.0		0		3279	0				P	SW				
Date First	ction - Interva	Hours	Test	Oil	Ga		Water	Oil G	ravity	To	Gas		Product	on Method		
Produced	Date	Tested	Production	BBL		CF	BBL	Corr.			Gravity				<u></u>	
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL		Gas Water Gas:Oil Well Status MCF BBL Ratio					itus					

201 70 1											·	
28b. Prod Date First	luction - Interva		In .	lo:		1	1					
Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API		Gas Gravity	Production Method		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio		Well Status			
28c. Prod	uction - Interva	al D										
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API		Gas Production Method Gravity			
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio		Well Status			
29. Dispo SOLE	sition of Gas(S	old, used f	or fuel, vent	ed, etc.)							·	
Show tests, i	nary of Porous all important 2 including depth ecoveries.	ones of po	rosity and co	ontents there	of: Cored in tool open,	ntervals and flowing and	all drill-ster I shut-in pres	m ssures	31. For	mation (Log) Ma	rkers	
	Formation		Тор	Bottom		Description	ons, Content	s, etc.		Name		Top Meas. Depth
The fi surfac csg w	ional remarks (irst 210 ft. of t ce hole was d vas run from 4 ration report 8	he surface rilled with 1974 ft. to	e hole was an 11 in. b 8833 ft. Att	drilléd with	ı was run fı	rom surfac	e to 4974 f	f t; LTC	BIF MA WA	EEN RIVER RD'S NEST HOGANY SATCH SAVERDE		1271 1594 1914 4435 6647
	enclosed attac		(1 full set re	q'd.)		2. Geologic	Report		3. DST Rep	port	4. Direction	nal Survey
5. Sur	ndry Notice for	plugging	and cement	verification		6. Core Ana			7 Other:			· - <i>y</i>
	by certify that		Electr	onic Submi For KERR	ssion #2027	743 Verifie	d by the BL ONSHORI	M Well In E L, sent t	formation Systo the Vernal		ched instruction	ons):
			c Submissi					ate 03/27/2	ALTORY AN	nL101		
Digital		,	- Capilliool				Di	<u>99/211</u>	2010			
Title 18 L	J.S.C. Section	1001 and T	itle 43 U.S.	C. Section 1	212, make i	t a crime for	r any person	knowingly	y and willfully	to make to any do	epartment or a	gency

Operation Summary Report

Well: NBU 1022-	1M4BS	ORANGE			August Angus et a		3 - Annual Control of the Control of	Spud Date: 9/2	6/2012		
Project: UTAH-UI	NTAH			Site: NBU	1022-1N	I PAD			Rig Name No: PROPETRO 12/12, PIONEER 54/54		
Event: DRILLING	i			Start Date	9/11/20	12			End Date: 11/29/2012		
Active Datum: Rk Level)	(B @5,1	30.00usft (ab	ove Mean S	ea	UWI: SE	E/SW/0/1	I0/S/22/E/1	1/0/0/26/PM/S/12	38/W/0/2093/0/0		
Date	} ∴St	Time art-End	Duration (hr)	. Phase	Code	Sub : Code	P/U	MD From (usft)	Operation		
9/26/2012	2:30	- 8:00	5.50	MIRU	01	С	Р		SKID RIG 20' TO NBU 1022-1M4BS, RIG UP SET MATTING BOARD, SET RIG IN PLACE, CATWALK, PIPE RACKS,		
ing amawan L	8:00	- 8:30	0.50	MIRU	01	C	P		PLACE BOTTOME HOLE ASSEMBLY PRE SPUD JOB SAFETY MEETING		
									REVEW DIRECTIONAL PLANS AND PLATS AND VERIFY LAT/LONGS AND WELL ORDER VERIFY DIRECTIONAL DRILLERS PLAN IS THE MOST RECENT AND APPROVED VERSION REFERENCE WELLBORE DIAGRAMS FOR EXACT CASING DESIGN AND GENERAL OVERVEW OF WELLBORE, PRIOR TO SPUD.		
	و شود								FINISH PICKING UP BHA. PICK UP NOV 1.83 DEGREE BENT MOTOR (RUN # 4)17 REV/GAL ŚN (1044684-10). PICK UP 12.25 Q506 DRILL BIT RUN 39 SN (7020485)		
	8:30	- 10:00	1.50	DRLSUR	02	В	Р		SPUD 09/26/2012 08:30. DRILL 12.25" HOLE 4'-210' (206', 110'/PER HOUR). 12.25 in. BIT ON 40 th RUN. WEIGHT ON BIT 5-15 K. STROKES PER MINUTE 120 GALLONS PER MINUTE 491. PRESSURE ON/OFF (BOTTOM) 800/600. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROTATE 20/20/20 K. DRAG 0 K.		
	10:00	- 11:30	1.50	DRLSUR	06	Α	Р		CIRCULATE CLOSED LOOP SYSTEM WITH 8.3# WATER. DRILL DOWN TO 210' WITH 6" DRILL COLLARS. PRE JOB SAFETY MEETING, CIRC 15 MINUTES AND, TRIP OUT TO CHANGE ASSEMBLY. LAY DOWN 6" DRILL COLLARS, BREAK 12 1/4" BIT. MAKE UP Q506F 11" BIT (3RD RUN) (SN 7031553) PICK UP 8" DIRECTIONAL ASSEMBLY.		
				w. T					INSTALL EM TOOL, TRIP IN HOLE.		

Operation Summary Report

				Opera	tion S	ummary Report	
Well: NBU 1022-1	IM4BS ORANGE				ind B. C. of Paragraph And C. S.	Spud Date: 9/	26/2012
Project: UTAH-UII	NTAH		Site: NBU	1022-1N	I PAD		Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING			Start Date	: 9/11/20	12		End Date: 11/29/2012
Active Datum: RK Level)	(B @5,130.00usft (a	bove Mean Se	a	UWI: SE	SW/0/10)/S/22/E/1/0/0/26/PM/S/1	238/W/0/2093/0/0
- Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U MD From (usft)	Operation
	11:30 - 18:00	6.50	DRLSUR	02	*** B _ **** *** *** *** *** *** *** *** ***	P design for the second	DRILL 11". SURFACE HOLE 210'-1120', (910', 140'/PER HOUR). WEIGHT ON BIT 15-25 K. STROKES PER MINUTE 120 GALLONS PER MINUTE 491. PRESSURE ON/OFF(BOTTOM) 1140/870. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 60/50/55 K. DRAG 5 K. SLIDING 15' PER 90'OF ROTATION GETTING 1.3
	18:00 - 0:00	6.00	DRLSUR	02	В	P	DEGREE BUILD RATES CURRENTLY 2.0' NORTH 1.8' RIGHT OF THE LINE CIRCULATE CLOSED LOOP SYSTEM WITH 8.4# WATER. RUNNING VOLUME OVER BOTH SHAKERS NO HOLE ISSUES. DRILL 11". SURFACE HOLE 1120'-1810', (690', 115'/PER HOUR). WEIGHT ON BIT 15-25 K. STROKES PER MINUTE 120 GALLONS PER MINUTE 491. PRESSURE ON/OFF(BOTTOM) 1250/1100. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 70/60/65 K. DRAG 5 K. SLIDING 15' PER 90'OF ROTATION GETTING 1.3 DEGREE BUILD RATES CURRENTLY 1.0' NORTH 1.0' RIGHT OF THE LINE CIRCULATE CLOSED LOOP SYSTEM WITH 8.4# WATER. RUNNING VOLUME OVER BOTH SHAKERS
9/27/2012	0:00 - 7:30	7.50	DRLSUR	02	В	P (1) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PUT AIR ON THE HOLE@ 1800 CFM @ 1450' NO OTHER HOLE ISSUES. DRILL 11". SURFACE HOLE 1810'-2472, (662', 88'/PER HOUR) TD@09/27/2012 07:30 WEIGHT ON BIT 15-25 K. STROKES PER MINUTE 120 GALLONS PER MINUTE
							491. PRESSURE ON/OFF(BOTTOM) 1250/1100. ROTARY RPM 55, MOTOR RPM 83, TOTAL RPM 138. UP/DOWN/ ROT 70/60/65 K. DRAG 5 K. SLIDING 15' PER 90'OF ROTATION GETTING 1.3 DEGREE BUILD RATES CURRENTLY 1.0' NORTH 1.0' RIGHT OF THE LINE
							CIRCULATE CLOSED LOOP SYSTEM WITH 8.4# WATER. RUNNING VOLUME OVER BOTH SHAKERS PUT AIR ON THE HOLE@ 1800 CFM @ 1450' NO OTHER HOLE ISSUES.

3/22/2013 2:23:44PM

Operation Summary Report

Well: NBU 1022-1M4BS ORANGE					Spud Date: 9/26/2012					
Project: UTAH-UINTAH	Site: NBU	J 1022-1N	I PAD		Rig Name No: PROPETRO 12/12, PIONEER 54/54					
Event: DRILLING	Start Date	e: 9/11/20	112		End Date: 11/29/2012					
Active Datum: RKB @5,130.00usft (above Mea _evel)	n Sea	UWI: SE/SW/0/10/S/22/E/1/0/0/26/PM/S/1238/W/0/2093/0/0								
Date Time Duratio	n Phase	Code	Sub Code	P/U	MD From Operation (usft)					
7:30 - 9:30 2.00	DRLSUR	05	A	Р	CIRCULATE AND CONDITION HOLE, VOLUME IS CLEAN COMING OVER SHAKERS, 4 400 BBL UPRIGHT'S FULL AND 2 EMPTY, MUD TANKS FULL,					
9:30 - 13:00 3.50	DRLSUR	06	A	P	HOLE IS STILL LOSING VOLUME. TRIP OUT OF HOLE, LAY DOWN BOTTOM HOLE					
49.00					ASSEMBLY, DIRECTIONAL TOOLS, MOTOR AND, BIT. LAY DOWN DIRECTIONAL TOOLS. CLEAR TOOL AREA.					
13:00 - 13:30 - 0.50	CSGSUR	06	A	P	PRE JOB SAFETY MEETING, MOVE PIPE RACKS AND CATWALK. PULL DIVERTER HEAD. RIG UP TO RUN SURFACE CASING.					
13:30 - 16:30 3.00	CSGSUR	12	С	P	CLEAR UNRELATED TOOLS. RUN 55 JOINTS OF 8-5/8". 28# J-55 LTC CASING.					
					RAN 1 CENTRALIZER ON FIRST THREE JOINTS, AND EVERY OTHER JOINT FOR 2 JOINTS FOR A TOTAL OF 5 CENTRALIZERS.					
					RUN A TOTAL OF 55 JOINTS. RUN CASING TO BOTTOM WITH NO PROBLEMS.					
40:00					SET FLOAT SHOE @ 2442.59' KB. SET TOP OF BAFFLE PLATE @ 2396.39' KB.					
16:30 - 18:00 1.50	CSGSUR	12	É	Р	PRE JOB SAFETY MEETING, RAN 200 ft OF 1 lin. PIPE DOWN BACK-SIDE OF CASING. RELEASE RIG					
					AT 16:30 hrs. 09/27/2012					
					PRESSURE TEST LINES TO 2000 PSI. PUMP 145 BBLS OF WATER AHEAD.					
					MIX AND PUMP 20 BBLS OF 8.5# GEL WATER AHEAD.					
					MIX AND PUMP (300 sx) 61.4 BBLS OF 15.8.8# 1.15 YIELD. DROP PLUG ON FLY,					
					DISPLACE W/ 149.4 BBLS OF H2O, NO RETURNS THROUGH OUT JOB, FINAL LIFT OF 270 PSI AT 3 BBL/MINUTE.					
					BUMP THE PLUGG WITH 450 PSI, HELD 450 PSI FOR 5 MINUTES, TESTED FLOAT AND FLOAT DID NOT HOLD.					
					SHUT DOWN AND WASH UP.					

Operation Summary Report

Well: NBU 1022	-1M4BS	ORANGE			_			Spud Date: 9/2	26/2012		
Project: UTAH-l	JINTAH			Site: NBU	1022-1N	PAD			Rig Name No: PROPETRO 12/12, PIONEER 54/54		
vent: DRILLIN	G			Start Date	: 9/11/20	12			End Date: 11/29/2012		
Active Datum: R .evel)	KB @5,1	30.00usft	(above Mean Se	a	UWI: SE	E/SW/0/1	0/S/22/E	/1/0/0/26/PM/S/12			
Date -	3 7 124 April 12	Time art-End	Duration (hr)	Phase	Code	Sub Code	- P/U	MD From	Operation		
	The second second second	- 0:00	6.00	CSGSUR	12	E	P	(usft)	PUMP CEMENT DOWN ONE INCH PIPE WITH 150 SX (30.7 bbls.) SAME CEMENT NO RETURNS TO SURFACE. SHUT DOWN AND WASH UP. WAIT 1.5 HOURS ON CEMENT, CEMENT DOWN BACKSIDE W 200 SX (41 bbls.) SAME CEMENT NO RETURNS TO SURFACE. WAIT 1.5 HOURS ON CEMENT, CEMENT DOWN BACKSIDE W 100 SX (20.4 bbls.) SAME CEMENT NO RETURNS TO SURFACE. WAIT 1.5 HOURS ON CEMENT, CEMENT DOWN BACKSIDE W 150 SX (30.7 bbls.) SAME CEMENT NO RETURNS TO SURFACE. WAIT 1.5 HOURS ON CEMENT, CEMENT DOWN BACKSIDE W 100 SX (20.4 bbls.) SAME CEMENT NO RETURNS TO SURFACE. WAIT 1.5 HOURS ON CEMENT, CEMENT DOWN BACKSIDE W 100 SX (20.4 bbls.) SAME CEMENT NO RETURNS TO SURFACE. WAIT 1.5 HOURS ON CEMENT, CEMENT DOWN BACKSIDE W 150 SX (30.7 bbls.) SAME CEMENT 3 BBLS RETURNS TO SURFACE.		
11/24/2012	13:00	- 14:00	1.00	MIRU3	01	С	P		RIG DOWN CEMENTERS. (CEMENT JOB FINISHED AT 23:59 hrs. 09/27/2012) SKID RIG TO THE NBU 1022-1M4CS		
	14:00	- 15:00	1.00	PRPSPD	01	В	P		N/U BOPE, R/U, FLOW LINE CHOKE LINES, WATER, BOILER, AIR, ECT		
	15:00	- 18:00 - 18:30	3.00	PRPSPD	15 14	A B	P P		HELD SAFETY MEETING, TEST PIPE & BLIND RAMS, INNER, OUTER BOP VALVES, HCR & CHOKE VALVES, 250 LOW, 5000 HIGH, ANN 2500, SURFACE CASING TO 1500 FOR 30 MIN INSTALL WEARBUSHING		
	18.30	- 20:30	2.00	PRPSPD	06	A	Р		SCRIBE BHA#1,TRIP IN HOLE		
	20:30	- 22:00	1.50	DRLPRC	02	F	P		DRILL CEMENT AND SHOE TRACK TO 2487'		
	22:00	- 0:00	2.00	DRLPRC	02	В	P		CLOSED LOOP SYSTEM DRILL F/2487 TO 2667=180 AVG 90 WOB / 18-24 RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 9.0 PPG 31 VIS TRQ ON/OFF = 6-5K PSI ON /OFF 1800-1400 , DIFF 200-500 PU/SO/RT = 115-100-105 K SLIDE = 0 ROT= 180 NOV / 2- DE-WATER 0 DRILL FLARE, 0 CONN FLARE		

Nell: NBU 1022-	1M4BS ORANGE			Spud Date: 9/26/2012								
Project: UTAH-U	INTAH		Site: NBL	J 1022-11	PAD			Rig Name No: PROPETRO 12/12, PIONEER 54/54				
vent: DRILLING	3	_	Start Dat	e: 9/11/20)12			End Date: 11/29/2012				
Active Datum: RI Level)	KB @5,130.00usft (a	bove Mean S	ea	UWI: SE/SW/0/10/S/22/E/1/0/0/26/PM/S/1238/W/0/2093/0/0								
Date	Time N	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation				
11/25/2012	0:00 - 8:00	8.00	DRLPRC	02	В	P		CLOSED LOOP SYSTEM DRILL F/2667 TO 3605 =938 AVG 117 WOB / 18-24 RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 9.0 PPG 31 VIS TRQ ON/OFF =7/5K PSI ON /OFF 1800-1400 , DIFF 200-500 PU/SO/RT = 120/100/110 K SLIDE =25% ROT= 75% NOV / 2- DE-WATER 1 HIGH 2' RIGHT OF LINE 0 DRILL FLARE 0 CONN FLARE				
	8:00 - 15:30	7.50	DRLPRC	02	B	P		0 DRILL FLARE, 0 CONN FLARE CLOSED LOOP SYSTEM DRILL F/3605 to 4374=769 AVG 102 WOB / 18-24 RPM TOP DRIVE 55-60				
								(2 PUMPS) - SPM 200 GPM 586 MW 9.1 PPG 38 VIS TRQ ON/OFF =9/5K PSI ON /OFF 2050/1580 , DIFF 200-500 PU/SO/RT =125/100/115 K SLIDE =180 13%				
	15:30 - 16:00	0.50	DRLPRC	07	A	Р		ROT=589 NOV / 2- DE-WATER 15' LEFT 12' LOW OF LINE 0 DRILL FLARE, 0 CONN FLARE RIG SERVICE				
	16:00 - 0:00	8.00	DRLPRC	02	B	P		CLOSED LOOP SYSTEM DRILL F/4374 TO 5228=854 AVG 106 WOB / 18-24 RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 9.5 PPG 45 VIS				
								TRQ ON/OFF =9/5K PSI ON /OFF 2150/1800 , DIFF 200-500 PU/SO/RT =145/105/115 K SLIDE =45 17% ROT=809 NOV / 2- CONVENTIONAL 1' WEST 13' NORTH OF CENTER 0 DRILL FLARE, 0 CONN FLARE				

			hr in di		Ų.	S ROC	KIES R	EGION	
		ta i e			Opera	ition S	Summa	ary Report	
Vell: NBU 1022-	1M4BS OF	RANGE	50405,000 prov2 \$2411		30, 10 , 30 <u>19</u> 10 yr	<u> 145K (116 partises</u>	<u> Augste</u> r Station	Spud Date: 9/26	5/2012
Project: UTAH-U	NTAH			Site: NBL	J 1022-1N	PAD			Rig Name No: PROPETRO 12/12, PIONEER 54/54
vent: DRILLING	i			Start Date	e: 9/11/20	12			End Date: 11/29/2012
Active Datum: Rk	(B @5,130	0.00usft (al	oove Mean S	ea	UWI: SI	E/SW/0/1	0/S/22/E/	1/0/0/26/PM/S/123	88/W/0/2093/0/0
_evel)			(**************************************						
Date	Star	me t-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/26/2012		- 8:00	9.50	DRLPRV	02	В	P		CLOSED LOOP SYSTEM DRILL F/5228 TO 6060=832 AVG 102 WOB / 18-24 RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 9.5 PPG 52 VIS TRQ ON/OFF =9/5K PSI ON /OFF 2200/1800 , DIFF 200-500 PU/SO/RT =145/105/115 K SLIDE =0 ROT=832 NOV / 2- CONVENTIONAL 1.5 EAST 13' NORTH OF CENTER 0 DRILL FLARE, 0 CONN FLARE CLOSED LOOP SYSTEM DRILL F/6060 TO 6650=590 AVG 62 WOB / 18-24 RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586
	17:30 -	· 18:00	0.50	DRLPRV	07	A	Ρ		MW 9.5 PPG 51 VIS TRQ ON/OFF =10/6 K PSI ON /OFF 2350/1900 , DIFF 200-500 PU/SO/RT =145/105/115 K SLIDE =30 ROT=560 NOV / 2- CONVENTIONAL 3 SOUTH 3 EAST OF CENTER 0 DRILL FLARE, 0 CONN FLARE RIG SERVICE
	18:00 -	0:00	6.00	DRLPRV	02	В	Р		CLOSED LOOP SYSTEM
									DRILL F/6650 TO 7081=431 AVG72 WOB / 18-24 RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 9.4 PPG 52 VIS TRQ ON/OFF =11/7 K PSI ON /OFF 2350/1900 , DIFF 200-500 PU/SO/RT =170/135/150 K SLIDE =12' ROT=419' NOV / 2- CONVENTIONAL 1EAST 11' NORTH OF CENTER 0 DRILL FLARE, 0 CONN FLARE

3/22/2013

2:23:44PM

						IS ROC	Salato N. C.	GION ry Report				
Well: NBU 1022-1M	14BS C	RANGE		<u> </u>	S. III DOMANIA WATER			Spud Date: 9/2	26/2012			
Project: UTAH-UIN	TAH			Site: NBU	1022-1	N PAD			Rig Name No: PROPETRO 12/12, PIONEER 54/54			
Event: DRILLING		· · · · · · · · · · · · · · · · · · ·		Start Date	e: 9/11/2	012			End Date: 11/29/2012			
Active Datum: RKB	@5,13	30.00usft (ab	ove Mean S		UWI: SE/SW/0/10/S/22/E/1/0/0/26/PM/S/1238/W/0/2093/0/0							
Level)		,			ĺ							
Date	Sta	Γime art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation			
	0:00 8:00	- 8:00 - 12:30	4.50	DRLPRV	02	B	P		CLOSED LOOP SYSTEM DRILL F/7081 TO 7660=579 AVG 72 WOB / 18-24 RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 9.4 PPG 46 VIS TRQ ON/OFF =11/7 K PSI ON /OFF 2350/1900 , DIFF 200-500 PU/SO/RT =170/135/150 K SLIDE =12 ROT=579 NOV / 2- CONVENTIONAL 3 EAST 8 NORTH OF CENTER 0 DRILL FLARE, 0 CONN FLARE CLOSED LOOP SYSTEM DRILL F/7660 TO 7981=321 AVG 71 WOB / 18-24 RPM TOP DRIVE 55-60			
									(2 PUMPS) - SPM 200 GPM 586 MW 9.4 PPG 46 VIS TRQ ON/OFF =11/7 K PSI ON /OFF 2350/1900 , DIFF 200-500 PU/SO/RT =170/135/150 K SLIDE = ROT=321 NOV / 2- CONVENTIONAL			
									1 EAST 15 NORTH OF CENTER			
	2:30	- 13:00	0.50	DDI DDV	07		В		3 DRILL FLARE, 5 CONN FLARE			
	3:00	- 13:00 - 13:30	0.50 0.50	DRLPRV DRLPRV	07	A	P		RIG SERVICE			
	3.30	- 15:00	1.50	DRLPRV	- 08 05	В	P		TOP DRIVE KICKING OUT AT CONTROL HOUSE			
		- 0:00	9.00	DRLPRV		В	•		DISPLACE HOLE WITH 12# MUD, DUE TO TOP DRIVE KICKING BREAKER IN CONTROL HOUSE			
•	0.00	- 0.00	9.00	DKLPKV	02	В	Р		CLOSED LOOP SYSTEM DRILL F/7981 TO 8470 =489 AVG 51			
									WOB / 18-24 RPM TOP DRIVE 55-60 (2 PUMPS) - SPM 200 GPM 586 MW 11.8 PPG 44 VIS TRQ ON/OFF =12/9 K PSI ON /OFF 2500/2100 , DIFF 200-500			
									PU/SO/RT =170/135/150 K SLIDE =0 ROT=489' NOV / 2- CONVENTIONAL 4 EAST 6' NORTH OF CENTER 5 DRILL FLARE, 8 CONN FLARE			

3/22/2013

2:23:44PM

Operation Summary Report

	10.7		No.		Operat	tion St	ımma	ry Report	
Well: NBU 1022-	1M4BS	ORANGE		-		and the second second	eren Martin zone	Spud Date: 9/26/	2012
Project: UTAH-UI	INTAH			Site: NBL	1022-1N	PAD		-	Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING	_			Start Date	e: 9/11/20 ⁻	12	_		End Date: 11/29/2012
Active Datum: Rk	(B @5,1	30.00usft (at	ove Mean Se	a	UWI: SE	/SW/0/10/	S/22/E/1	/0/0/26/PM/S/1238	
Level)					Ĺ				
Date	22.5	Time art-End	Duration (hr)	Phase	Code :	Sub Code	P/U	MD From (usft)	Operation
11/28/2012	0:00	- 6:30	6.50	DRLPRV	02	В	Р		CLOSED LOOP SYSTEM
									DRILL F/8470 TO TD 8845'=375 AVG
									WOB / 18-24
									RPM TOP DRIVE 55-60
									(2 PUMPS) - SPM 200 GPM 586
AND THE RESERVE									MW 12 PPG 44 VIS TRQ ON/OFF =12/9 K
									PSI ON /OFF 2500/2100 , DIFF 200-500
									PU/SO/RT =170/135/150 K
									SLIDE =0
·									ROT=489'
									NOV / 2- CONVENTIONAL
									4 EAST 6' NORTH OF CENTER
	6:30	- 7:30	1.00	DRLPRV	05	C	Р		0 DRILL FLARE, 4 CONN FLARE
									FLOW CHECK,FINAL SURVEY,CIRCULATE BOTTOMS UP WITH 12.1 MUD WEIGHT 3' DOWNTIME FLARE
	7:30	- 15:30	00.8	DRLPRV	06	E	P		WPER TRIP TO SHOE, TIGHT SPOTS FROM 7660 TO
									3600, BREAK CIRCULATION AT SHOE, BEFORE TRIP
	4 E-20								in the state of th
	15:30	- 20:00	4.50	DRLPRV	06	E	Р		TRIP IN HOLE,WASH THRU BRIDGES 5915,6170,6495'
	20:00	- 22:00	2.00	DRLPRV	05	С	Р		CIRCULATE AND CONDITION FOR CASING,10-20'
	22:00	- 0:00	2.00	DDI DDV					FLARE BOTTOMS UP
11/29/2012	0:00	- 3:00	2.00	DRLPRV	06	A	P		TRIP OUT FOR CASING ,FAIR TO GOOD
11/23/2012	3:00			DRLPRV	06	Α _	P		TRIP OUT WITH BHA #1 FOR CASING RUN,TRIP OUT GOOD
	3:30	- 3:30		CSGPRO	14	B	P		PULL WEARBUSHING
	3.30	- 11:00	7.50	CSGPRO	12	С	P		HELD SAFETY MEETING WITH RIG & KIMZEY
									CASING, R/U & RUN 201 JTS 4.5", I-80 #11.6 PPF
									PROD CASING = 1 X/O, I MESAVERDE MARKER,MANDREL & LANDING JT, SHOE @ 8833,
									FLOAT COLLAR@ 8786", LAND MANDREL HANGER
	11:00	- 12:30	1.50	CSGPRO	05	D	Р		CIRCULATE AND CONDITION FOR CEMENT ,10 ' FLARE FOR 10 MINUTES
	12:30	- 15:00	2.50	CSGPRO	12	Ē	Р		HELD SAFETY MEETING, PSI TEST LINES TO
									5000,PUMP 25 BBL WATER SPACER, LEAD 486
									SACKS 12,5 PPG 1,98 YLD
									PLII+6%Gel+.6%R-3+.4%SM+.25#/SK CF+5#/SK
									Kol-Seal+.4%FL-52,5#blsf TAIL 930 SACKS 14.3
									PPG 1.32 YLD,50/50poz+2%gell+0.55% R-3+10%salt+5#blsf+.75%SMS DISPLACE WITH 136
									CLAYFIX WATER, FULL RETURNS T, 1.5 BBLS
									BACK TO TRUCK, FINAL LIFT PSI 2600, BUMP PLUG
									@ 3200, HELD FOR 5 MIN, FLOATS HELD,20 BBL
									CEMENT TO SURFACE EST TOP OF TAIL 3950,
									FLOAT COLLAR 8786,SHOE @ 8833', WASH STACK, R/D
	15:00	- 15:30	0.50	CSGPRO	14	В	P		STACK, RID SET PACK OFF WITH CAMERON
	15:30	- 16:00	0.50	RDMO	14	A	P		NIPPLE DOWN, SAVE MUD, PREP FOR SKID, RIG
	127								RELEASE@ 16:00 11/29/2012

3/22/2013

2:23:44PM

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 1022-1M4BS ORANGE	Wellbore No.	OH
Well Name	NBU 1022-1M4BS	Wellbore Name	NBU 1022-1M4BS
Report No.	1	Report Date	2/11/2013
Project	UTAH-UINTAH	Site	NBU 1022-1N PAD
Rig Name/No.		Event	COMPLETION
Start Date	12/19/2012	End Date	2/28/2013
Spud Date	9/26/2012	Active Datum	RKB @5,130.00usft (above Mean Sea Level)
UWI	SE/SW/0/10/S/22/E/1/0/0/26/PM/S/1238/W/0/2093	3/0/0	

1.3 General

Contractor	Job Method	Supervisor	
Perforated Assembly	Conveyed Method	"	

1.4 Initial Conditions

1.5 Summary

Fluid Type		Fluid Density	Gross interval	7,339.0 (usft)-8,635.0 (usft	Start Date/Time	2/11/2013	12:00AM
Surface Press		Estimate Res Press	No. of Intervals	35	End Date/Time	2/11/2013	12:00AM
TVD Fluid Top		Fluid Head	Total Shots	120	Net Perforation Interval		36.00 (usft)
Hydrostatic Press		Press Difference	 Avg Shot Density	3.33 (shot/ft)	Final Surface Pressure		
Balance Cond	NEUTRAL				Final Press Date		

2 Intervals

2.1 Perforated Interval

Date:	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/j Diamete Add. Shot ri (in)	HCa Light	arr Type /Stage No	Carn Size (in)	Phasing (°)	Charge Desc/Charge, Manufacturer	Charge Weight (gram)	Reason	Misrun
2/11/2013	MESAVERDE/		-	7,339.0	7,341.0	4.00	0.36	EXP/	•	3.375	90.00		23.00	PRODUCTIO	
12:00AM			9											N	

2.1 Perforated Interval (Continued)

Date	Formation// Reservoir	CCL@	CCL-T	MD Top (usft)	MD Base (usft)	Shot Density	Misfires/j Diamete	Car	Si	ize -	Phasing (°)	Charge Desc /Charge Manufacturer	Weight	Reason	Misrum
0/44/0040	MESAVERDE/		(usft)	7,398.0	7,399.0	(shot/ft) 4.00	(in) 0.360	EYD/		(in) 3.375	90.00		(gram)	DUCTIO	银杏品涂.
12:00AM	MESAVERUE/			7,386.0	7,388.0	4.00	0.360	EAP	1111	3,373	90.00		23.00 PRO N	DOUCTIO	
2/11/2013 12:00AM	MESAVERDE/			7,411.0	7,412.0	4.00	0.360	EXP/		3.375	90.00		23.00 PRO N	ODUCTIO	
2/11/2013 12:00AM	MESAVERDE/			7,608.0	7,609.0	4.00	0.360	EXP/		3.375	90.00		23.00 PRO N	OITOUCC	
2/11/2013 12:00AM	MESAVERDE/			7,619.0	7,620.0	4.00	0.360	EXP/	3	3.375	90.00		23.00 PRO N	OITOUG	
2/11/2013 12:00AM	MESAVERDE/			7,664.0	7,665.0	3.00	0.360	EXP/		3.375	120.00		23.00 PRO N	ODUCTIO	THE ALL PROPERTY.
2/11/2013 12:00AM	MESAVERDE/		***************************************	7,680.0	7,681.0	3.00	0.360	EXP/	3	3.375	120.00		23.00 PRO N	OITOUGO	
2/11/2013 12:00AM	MESAVERDE/			7,705.0	7,706.0	3.00	0.360	EXP/	3	3.375	120.00		23.00 PRO N	ODUCTIO	
2/11/2013 12:00AM	MESAVERDE/		ALL BEILDING	7,748.0	7,749.0	3.00	0.360	EXP/		3.375	120.00	and a state of the	23.00 PRO N	OITOUD	
2/11/2013 12:00AM	MESAVERDE/			7,759.0	7,760.0	3.00	0.360	EXP/	3	3.375	120.00	ACCOUNTS OF THE PROPERTY OF TH	23.00 PRO N	ODUCTIO	
2/11/2013 12:00AM	MESAVERDE/			7,765.0	7,766.0	3.00	0.360	EXP/	3	3.375	120.00	and the second s	23.00 PRO N	ODUCTIO	
2/11/2013 12:00AM	MESAVERDE/			7,780.0	7,781.0	3.00	0.360	EXP/	3	3.375	120.00		23.00 PRC N	DUCTIO	
2/11/2013 12:00AM	MESAVERDE/			7,798.0	7,799.0	3.00	0.360	EXP/	3	3.375	120.00		23.00 PRC N	DUCTIO	
2/11/2013 12:00AM	MESAVERDE/			7,886.0	7,887.0	3.00	0,360	EXP/	3	3.375	120.00		23.00 PRC N	DUCTIO	
2/11/2013 12:00AM	MESAVERDE/			7,904.0	7,905.0	3.00	0.360	EXP/	3	3.375	120.00		23.00 PRC N	DUCTIO	
2/11/2013 12:00AM	MESAVERDE/			7,929.0	7,930.0	3.00	0.360	EXP/	3	3.375	120.00		23.00 PRC N	DUCTIO	
2/11/2013 12:00AM	MESAVERDE/			0.000,8	8,001.0	3.00	0.360	EXP/	3	3.375	120.00		23.00 PRC N	DUCTIO	
2/11/2013 12:00AM	MESAVERDE/			8,011.0	8,012.0	3.00	0.360	EXP/	3	3.375	120.00		23.00 PRC N	DUCTIO	
2/11/2013 12:00AM	MESAVERDE/			8,040.0	8,041.0	3.00	0.360	EXP/	3	3.375	120.00		23.00 PRO N	DUCTIO	
2/11/2013 12:00AM	MESAVERDE/			8,056.0	8,057.0	3.00	0.360	EXP/	3	3.375	120.00		23.00 PRO N	DUCTIO	
	MESAVERDE/			8,078.0	8,079.0	3.00	0.360	EXP/	3	3.375	120.00		23.00 PRO N	DUCTIO	
2/11/2013 12:00AM	MESAVERDE/			8,109.0	8,110.0	3.00	0.360	EXP/	3	3.375	120.00		23.00 PRO N	DUCTIO	BROWN 19-4

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/i	Diamete It: (in)	Carr Type /Stage No	Carn Size	Phasing	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
2/11/2013 12:00AM	MESAVERDE/			8,129.0	8,130.0	3.00		0.360	EXP/	3.375	120.00		Link till Add and the Vista	PRODUCTIO N	Amacazon - 1962-001980
2/11/2013 12:00AM	MESAVERDE/			8,173.0	8,174.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/11/2013 12:00AM	MESAVERDE/			8,187.0	8,188.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/11/2013 12:00AM	MESAVERDE/			8,195.0	8,196.0	3.00	7.00	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/11/2013 12:00AM	MESAVERDE/			8,237.0	8,238.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/11/2013 12:00AM	MESAVERDE/			8,285.0	8,286.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/11/2013 12:00AM	MESAVERDE/			8,319.0	8,320.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2/11/2013 12:00AM	MESAVERDE/		4	8,343.0	8,344.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/11/2013 12:00AM	MESAVERDE/	and the same of th	-	8,354.0	8,355.0	4.00		0.360	EXP/	3.375	90.00	77777	23.00	PRODUCTIO N	To a constant de sensor de la constant de sensor de la constant de sensor de la constant de la c
2/11/2013 12:00AM	MESAVERDE/	William Company		8,438.0	8,439.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/11/2013 12:00AM	MESAVERDE/		A CONTRACTOR OF THE CONTRACTOR	8,526.0	8,527.0	4.00	The state of the s	0.360	EXP/	3.375	90.00		1	PRODUCTIO N	
2/11/2013 12:00AM	MESAVERDE/			8,545.0	8,546.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
2/11/2013 12:00AM	MESAVERDE/			8,634.0	8,635.0	4.00	PATRO, WAR INC. TAXABILITY TAXABI	0.360	EXP/	3.375	90.00		1	PRODUCTIO N	

3 Plots

Operation Summary Report

Well: NBU 1022	-1M4BS	ORANGE		_				Spud Date: 9/26	5/2012
Project: UTAH-U	JINTAH			Site: NBU	1022-1N	I PAD			Rig Name No:
Event: COMPLE				Start Date					End Date: 2/28/2013
Active Datum: F Level)	KB @5,1	30,00usft (ab	ove Mean Se	ea	UWI: SE	E/SW/0/1	0/S/22/E	/1/0/0/26/PM/S/123	8/W/0/2093/0/0
Date Park		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
12/19/2012		-							
12/20/2012	11.20	-		/					
2/6/2013	11:30	- 12:30	1.00	SUBSPR	33	С			FILL SURFACE CSG. MIRU CAMERON QUICK TEST. 1ST PSI TEST T/7000 PSI. HELD FOR 15 MIN LOST 68 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI.
									PRESSURE TEST 8 5/8 X 4 1/2 TO 603 PSI HELD FOR 5 MIN
2/7/2013	7:00	÷ 13:00	6.00	CHROSS	ō 		_		LOST-377 PSI,BLED PSI OFF, REINSTALLED POP OFF SWIFN
2/11/2013	7.00	- 13.00	6.00	SUBSPR	37		Р		PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER PERF DESIGN. POOH. SWIFW
2/12/2013	8:00	- 18:00	10.00	FRAC	36	В	Р		FRAC STG 1)WHP 795 PSI, BRK 2967 PSI @ 4.7 BPM. ISIP 2385 PSI, FG. 0.72 ISIP 2555 PSI, FG. 0.74, NPI 170 PSI. SWI, XO T/ WL.
									PERF STG 2)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SEST CBP @ 8333' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.
									FRAC STG 2)WHP 2174 PSI, BRK 2920 PSI @ 4.7 BPM. ISIP 2315 PSI, FG. 0.72 ISIP 2605 PSI, FG. 0.76, NPI 290 PSI. SWI, XO T/ WL.
									PERF STG 3)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 8099' P/U PERF AS PER DESIGN. POOH, SWIFN.
2/13/2013	9:28	- 18:00	8.53	FRAC	36	В	Р		FRAC STG 3)WHP 1810 PSI, BRK 2650 PSI @ 4.7 BPM. ISIP 1984 PSI, FG. 0.69 ISIP 2107 PSI, FG. 0.7, NPI 123 PSI. SWI, XO T/ WL.
									PERF STG 4)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 120 DEG PHASING. RIH SET CBP @ 7829' P/U PERF AS PER DESIGN. POOH, XO T/ FRAC.
									FRAC STG 4)WHP 1730 PSI, BRK 2498 PSI @ 4.7 BPM. ISIP 1742 PSI, FG. 0.66 ISIP 2107 PSI, FG. 0.71, NPI 365 PSI. SWIFN.
					- 1000				PERF STG 5)PU 4 1/2 8K HAL CBP & 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7650' P/U PERF AS PER DESIGN. POOH. SWIFN.

Operation Summary Report

Well: NBU 1022-		PRANGE						Spud Date: 9/26	5/2012
Project: UTAH-L	IINTAH —			Site: NBU	1022-11	PAD	,		Rig Name No:
Event: COMPLE	TION			Start Date					End Date: 2/28/2013
Active Datum: R Level)	KB @5,13	30.00usft (ab	ove Mean S	Sea	UWI: SE	E/SW/0/10	/S/22/I	E/1/0/0/26/PM/S/123	8/W/0/2093/0/0
Date	1 19 X 19 C 17 C	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation :
2/14/2013		- 12:00	3.50	FRAC	36	В	P		FRAC STG 5)WHP 360 PSI, BRK 2518 PSI @ 4.7 BPM. ISIP 1535 PSI, FG. 0.64 ISIP 2566 PSI, FG. 0.78, NPI 1031 PSI. SWI, XO T/ WL.
									PU 4 1/2 8K HAL CBP. RIH SET KILL PLUG @ 7289'. POOH. SWI. DONE FRACING THIS WELL.
.		8 13 J							TOTAL SAND = 142,331 LBS TOTAL CLFL = 6726 BBLS
2/27/2013	9:30	- 11:00	1.50	DRLOUT	30	Α	P		MOVE OVER & RIG UP, ND WH NU BOPS, RU FLOOR & TBG EQUIP.
	11:00	- 17:00	6.00	DRLOUT	31	I	Р		TALLY & PU 37/8 BIT, POBS, 1.875 X/N, & 229 JTS 23/8 L-80 TO KILL PLUG @ 7300'. RU DRLG EQUIP,
2/28/2013	7:00	- 7:30	0.50	DRLOUT	48		Р		PREP TO D/O IN AM SWI SDFN. HSM, WORKING W/ POWER SWIVEL DRILLING
	7:30	- 13:30	6.00	DRLOUT					CBPS. BROKE CIRC CONV, TEST BOPS TO 3,000# RIH.
									C/O 12' SAND TAG 1ST PLG @ 7300' DRL PLG IN 7 MINS, 900 PSI INCREASE RIH
									C/O 25' SAND TAG 2ND PLG @ 7650' DRL PLG IN 2 MINS, 500 PSI INCREASE RIH
									C/O 30' SAND TAG 3RD PLG @ 7829' DRL PLG IN 2 MINS, 400 PSI INCREASE RIH.
									C/O 17' SAND TAG 4TH PLG @ 8099' DRL PLG IN 4 MINS, 400 PSI INCREASE RIH.
									C/O 35' SAND TAG 5TH PLG @ 8335' DRL PLG IN 6 MINS, 700 PSI INCREASE RIH.
									C/O TO 8743', CIRC CLN, HANG SWIVEL, L/D 21 JTS LAND TBG ON 254 JTS 23/8 L-80, ND BOPS NU WH, TEST FLOW LINE TO 3,000#, PUMP OFF BIT @ 1800 PSI, TURN WELL OVER TO FB CREW.
									KB = 19' 41/16 CAMERON HNGR = .83' SURFACE OPEN & LOCK) 254 JTS 23/8 L-80 = 8016.87' 2800 SICP 100 FTP 1.875 X/N, POBS = 2.20' EOT @ 8083.90'
									TWTR = 6871 BBLS TWR = 1300 BBLS TWLTR = 5571 BBLS
									283 JTS 23/8 L-80 DELIVERED 254 LANDED 29 TO RETURN

3/22/2013

2:28:00PM



Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: NBU 1022-1N PAD Well: NBU 1022-1M4BS

Wellbore: OH Design: OH

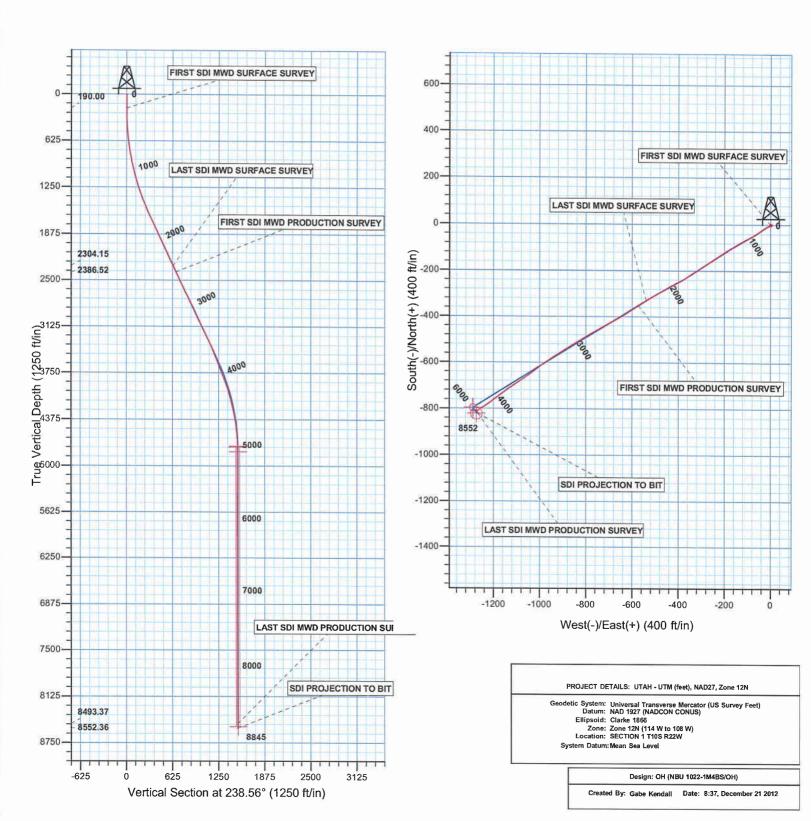


A A

Azimuths to True North Magnetic North: 11.00°

Magnetic Field Strength: 52310.3snT Dip Angle: 65.86° Date: 08/23/2011 Model: IGRF2010







US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N NBU 1022-1N PAD NBU 1022-1M4BS

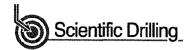
OH

Design: OH

Standard Survey Report

21 December, 2012







Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well:

NBU 1022-1M4BS

Wellbore: Design:

ОН ОН

NBU 1022-1N PAD

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Database:

Well NBU 1022-1M4BS

GL 5111 & KB 19 @ 5130,00ft (PIONEER 54) GL 5111 & KB 19 @ 5130.00ft (PIONEER 54)

Minimum Curvature

EDM 5000.1 Single User Db

Project

UTAH - UTM (feet), NAD27, Zone 12N

Map System: Geo Datum:

Map Zone:

Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS) Zone 12N (114 W to 108 W)

System Datum:

Mean Sea Level

Site

From:

NBU 1022-1N PAD, SECTION 1 T10S R22W

Site Position:

Lat/Long

Northing: Easting:

14,520,707.86 usft 2,091,624.33 usft

Latitude: Longitude:

39 974155

Position Uncertainty:

0.00 ft

Slot Radius:

13.200 in

Grid Convergence:

-109.389524

1.03 °

Well

NBU 1022-1M4BS, 1238 FSL 2093 FWL

Well Position

+N/-S +E/-W 0.00 ft 0.00 ft

Northing: Easting:

14,520,698.01 usft 2,091,623.67 usft

Latitude: Longitude:

39.974128 -109.389527

0.00

Position Uncertainty

0.00 ft

Wellhead Elevation:

0.00

ft

Ground Level:

65.86

5,111.00 ft

Wellbore OH

Magnetics Model Name

Sample Date IGRF2010 08/23/11 Declination **(°**)

0.00

SDI MWD

Dip Angle (°)

Field Strength (nT)

52 310

Design

Audit Notes:

Version:

1.0

ОН

Phase:

ACTUAL

Tie On Depth:

0.00

Vertical Section:

Depth From (TVD) (ft)

+N/-S (ft)

+E/-W

11.00

Direction (°)

238.56

Survey Program From

12/21/12

8,845.00 Survey #2 SDI MWD PRODUCTION (OH)

То

15.00

2,513.00

Survey (Wellbore)

Tool Name 2,422.00 Survey #1 SDI MWD SURFACE (OH) SDI MWD

Description

SDI MWD - Standard ver 1.0.1 SDI MWD - Standard ver 1,0,1

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (*/100ft)	Build Rate (°/100ft)	Turn Rate (°)100ft)
0.00	0.00	0,00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00
190.00	0.09	9,63	190.00	0.14	0.02	-0.09	0.05	0.05	0.00
FIRST SDI N	IWD SURFACE S	SURVEY							
275.00	0.83	252.77	275.00	0.02	-0.55	0.46	1.03	0.87	-137.48
357.00	2.29	237.36	356.96	-1.04	-2.50	2.68	1.84	1.78	-18.79
447.00	3.81	244.79	446.83	-3.28	-6,72	7.45	1.74	1.69	8,26
537.00	5.63	244.74	536.53	-6.44	-13.42	14.81	2.02	2.02	-0.06
627.00	7.03	237.80	625.98	-11.26	-22.07	24.71	1,77	1.56	-7.71
717.00	8.36	234.53	715.16	-17.99	-32.06	36.74	1.56	1.48	-3 63





Company: Project: US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-1N PAD

 Well:
 NBU 1022-1M4BS

Wellbore: OH Design: OH Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Database:

Well NBU 1022-1M4BS

GL 5111 & KB 19 @ 5130.00ft (PIONEER 54) GL 5111 & KB 19 @ 5130.00ft (PIONEER 54)

True

Minimum Curvature

EDM 5000.1 Single User Db

Measured			Vertical			Vertical		FR. 18 4	_
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S	+E/-W	Section	Dogleg Rate	Build Rate	Turn Rate
	11	• • • • • • • • • • • • • • • • • • • •	(iii)	(代)	(ft)	(ft)	(°/100ft)	(°/180ft)	(°/100ft)
807.00	10.18	234.47	803.99	-26.41	-43.86	51.20	2.02	2.02	- 0.07
897.00	11.52	237.03	892.37	-35.92	-57.88	68.12	1.58	1.49	2.84
987.00	12.75	238.50	980.36	-46.01	-73.88	87.03	1.41	1.37	1.63
1,077.00	14.42	240.87	1,067.84	-56.65	-92.14	108.16	1.96	1.86	2.63
1,167.00	16.27	240.70	1,154.63	-68,28	-112.93	131.96	2.06	2.06	-0.19
1,257.00	18.20	240.43	1,240.58	-81.38	-136.15	158.61	2.15	2.14	-0.30
1,347.00	20.05	238.85	1,325.61	-96.30	-161.58	188.09	2.13	2.06	-1.76
1,437.00	21.81	236.04	1,409.67	-113.62	-188.65	220.22	2.25	1.96	-3.12
1,527.00	23.04	237.88	1,492.87	-132,33	-217.44	254.54	1.57	1.37	2,04
1,617.00	24.53	236.92	1,575.22	-151.89	-248.01	290.83	1,71	1.66	- 1.07
1,707.00	25.28	236.20	1,656.85	-172.78	-279.63	328.70	0.90	0.83	-0.80
1,797.00	25,41	234.63	1,738.19	-194.65	-311.35	367.17	0,76	0.14	-1.74
1,887.00	25.50	237.09	1,819.46	-216.35	-343.36	405.80	1.18	0.14	2.73
1,977.00	25.34	240,20	1,900.75	-236.45	-376.34	444,42	1.49	-0.18	3.46
2,067.00	24.84	242.41	1,982.26	-254.77	-409.80	482.53	1.18	-0.56	2.46
2,157.00	25.00	241.42	2,063.88	-272.63	-443.26	520.39	0.50	0.18	-1.10
2,247.00	24.80	239.64	2,145.51	-291,27	-476.25	558,25	0.86	-0.22	1.00
2,337.00	24.85	238,46	2,227.20	-310.70	-508.65	596.04	0.55	0.06	-1.98
2,422.00	25.41	237.88	2,304.15	-329.74	-539,32	632.13	0.72	0.66	-1.31
LAST SDI MI	ND SURFACE S	URVEY				002.10	0,72	0.00	-0.68
2,513.00	24.89	235.66	2,386.52	-350.92	-571.67	670.78	1.18	-0.57	-2,44
FIRST SDI M	WD PRODUCTIO	ON SURVEY						7 - 11 - 12 - 12 -	-2,44
2,608.00	24.62	237.42	2,472.80	-372.85	-604.85	710.53	0.83	-0.28	1.85
2,703.00	25.41	238.74	2,558.88	-394.09	-638.95	750.70	1.02	0.83	1.39
2,798.00	26,03	239.70	2,644.47	-415.18	-674.37	791.92	0.79	0.65	1.01
2,892.00	26.64	241.02	2,728.72	-435.80	-710.61	833.60	0.90	0.65	1.40
2,987.00	26.56	240.76	2,813.66	-456.49	-747.78	876.10	0.15	-0.08	-0.27
3,082.00	25,50	238.74	2,899.03	-477.48	- 783.79	917.78	1.45	-1.12	-2.13
3,176.00	24.01	238.56	2,984.39	-4 97.95	-817.41	957.14	1.59	-1.59	-0.19
3,272.00	25.06	237.59	3,071.72	-519.04	-851.24	997.00	1.17	1.09	-1.01
3,367.00	25.68	237.86	3,157.55	-540.77	-885.65	1,037.70	0.66	0.65	0.28
3,461.00	25.24	237.07	3,242.43	-562.50	-919.72	1,078.10	0.59	-0.47	-0.84
3,556.00	25.76	235.13	3,328.17	-585.32	-953.66	1,118.95	1.04	0.55	-2.04
3,651.00	23.39	234.78	3,414.56	-608.00	-986.00	1,158.38	2.50	-2.49	-0.37
3,746.00	22,61	233,48	3,502.01	-629.74	-1,016.09	1,195.39	0.98	-0,82	-0.37
3,841.00	21.29	232.68	3,590.12	-651.07	-1,044.48	1,230.74	1.42	-1.39	-0.84
3,936.00	21.04	236.32	3,678.72	-670.98	-1,072.39	1,264.93	1.41	-0.26	-0.6 4 3.83
4,031.00	21.46	236.71	3,767.26	-689.98	-1,101.10	1,299.34	0.47	0.44	3.63 0.41
4,126.00	21.54	233.90	3,855.65	- 709.79	-1,129.72	1,334.09	1.09	0.08	-2.96
4,221.00	18.91	234.25	3,944.78	- 729.06	-1,156.31	1,366.83	2.77	-2.77	0.37
4,315.00	16.36	232.76	4,034.36	-745.98	-1,179.22	1,395.20	2.75	-2.71	-1.59
4,410.00	14.86	232.32	4,125.85	-761.52	-1,199.51	1,420.62	1.58	-1.58	-0.46
4,505.00	13.37	235.31	4,217.98	-775.22	-1,218.18	1,443.70	1.75	-1.57	-0.40





Company: Project: US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: NBU 1022-1N PAD NBU 1022-1M4BS

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Database:

Well NBU 1022-1M4BS

GL 5111 & KB 19 @ 5130.00ft (PIONEER 54) GL 5111 & KB 19 @ 5130.00ft (PIONEER 54)

True

Minimum Curvature

EDM 5000.1 Single User Db

Measured			Vertical			Vertical	Dogleg	Build	Teran
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Turn Rate (°/100ft)
4,600.00	11.96	234.69	4,310.67	-787.16	-1,235.25	1,464.49	1.49	-1.48	• -0.65
4,695.00	8.79	236.54	4,404.10	-796,85	-1,249.34	1,481.56	3,35	-3.34	1.95
4,790.00	6.07	236.19	4,498.30	-803.65	-1,259.57	1,493.84	2.86	-2.86	-0.37
4,885.00	4.04	239.79	4,592.92	-808.13	-1,266.64	1,502.20	2.16	-2.14	3.79
4,980.00	2.55	244.45	4,687.76	-810.73	-1,271.44	1,507.65	1.59	-1.57	4.91
5,075.00	1.23	263.78	4,782.71	-811.75	-1,274.36	1,510.68	1.52	-1.39	20.35
5,170.00	0.79	354.49	4,877.70	-811.21	-1,275.43	1,511.31	1.55	-0.46	95,48
5,264.00	0.53	348.51	4,971.69	- 810.14	-1,275.58	1,510.88	0.29	-0.28	-6.36
5,359.00	0.62	34.13	5,066.69	-809,28	-1,275.38	1,510.26	0.48	0.09	48.02
5,454.00	0.44	47.66	5,161.69	-808.61	-1,274.82	1,509.44	0.23	-0.19	14.24
5,548.00	0.35	26.04	5,255.68	-808.11	-1,274.43	1,508.84	0.18	-0.10	-23.00
5,643.00	0.53	56.98	5,350.68	-807.61	-1,273.93	1,508.16	0.31	0.19	32.57
5,738.00	0.53	106.28	5,445.68	-807.49	-1,273.14	1,507.42	0.47	0.00	51.89
5,833.00	0.23	140.52	5,540.68	-807.76	-1,272.60	1,507.10	0.38	-0.32	36.04
5,928.00	0.53	150.85	5,635.67	-808.29	-1,272.27	1,507.09	0.32	0.32	10.87
6,023.00	0.95	154.49	5,730.66	-809.39	-1,271.71	1,507.19	0.44	0.44	3.83
6,118.00	1.23	167.98	5,825.65	-811.10	-1,271.16	1,507.61	0.40	0.29	14.20
6,212.00	0.53	179.85	5,919.64	-812.52	-1,270.95	1,508.17	0.77	-0.74	12.63
6,307.00	0.53	163.24	6,014.63	-813,38	-1,270.82	1,508.51	0.16	0.00	-17.48
6,401.00	0.97	176.33	6,108.62	-814.59	-1,270.65	1,508.99	0.50	0.47	13.93
6,496.00	1.23	172.11	6,203.61	-816.40	-1,270.45	1,509.77	0.29	0.27	-4.44
6,591.00	0.35	197.87	6,298.60	-817.69	-1,270.40	1,510.40	0.98	-0.93	27.12
6,685.00	1.41	323.20	6,392.59	-817.03	-1,271.18	1,510.73	1.74	1.13	133.33
6,780.00	0.88	330.67	6,487.57	-815.46	-1,272.24	1,510.81	0.58	-0.56	7.86
6,875.00	0.79	343.06	6,582.56	-814.20	-1,272.79	1,510.62	0.21	-0.09	13.04
6,970.00	0.79	13.65	6,677.55	-812.94	-1,272.83	1,509.99	0.44	0.00	32.20
7,064.00	0.76	19.36	6,771.54	-811.72	-1,272.47	1,509.05	0.09	-0.03	6.07
7,160.00	0.62	5.74	6,867.53	-810.60	-1,272.20	1,508.24	0.22	-0.15	-14.19
7,254.00	0.26	49.42	6,961.53	-809.96	-1,271.99	1,507.72	0.50	-0.38	46.47
7,349.00	0.62	329.00	7,056.53	-809.37	-1,272.09	1,507.51	0.66	0.38	-84.65
7,444.00	0,53	325.04	7,151.52	-808.57	-1,272.61	1,507.53	0.10	-0.09	-4.17
7,538.00	0.44	298.06	7,245.52	-808.05	-1,273.18	1,507.74	0.26	-0.10	-28.70
7,633.00	0.36	346.02	7,340.52	-807.59	-1,273.57	1,507.84	0.35	-0.08	50.48
7,728.00	0.35	358.35	7,435.52	-807.01	-1,273.65	1,507.60	0.08	-0.01	12.98
7,822.00	0.35	28,25	7,529.52	-806.47	-1,273.52	1,507.21	0.19	0.00	31.81
7,916.00	0.09	112.44	7,623.52	-806.24	-1,273.32	1,506.92	0.37	-0.28	89.56
8,011.00	0.44	144.43	7,718.51	-806.57	-1,273.04	1,506.85	0.39	0.37	33.67
8,106.00	0.62	166.40	7,813.51	-807.36	-1,272.70	1,506.98	0.28	0.19	23.13
8,201.00	0.88	167.72	7,908.50	-808.58	-1,272.43	1,507.38	0.27	0.27	1.39
8,296.00	1.06	159.11	8,003.49	-810.11	-1,271.96	1,507.78	0.24	0.19	-9.06
8,392.00	1.14	158.05	8,099.47	-811.83	-1,271.29	1,508.10	0.09	0.08	-1.10
8,487.00	1.14	160.16	8,194.45	-813.59	-1,270.61	1,508.44	0.04	0.00	2.22
8,582.00	1.41	157.70	8,289.43	-815.56	-1,269.85	1,508.82	0.29	0.28	-2.59





Company: Project: US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: NBU 1022-1N PAD NBU 1022-1M4BS

Wellbore: OH Design: OH Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Database:

Well NBU 1022-1M4BS

GL 5111 & KB 19 @ 5130.00ft (PIONEER 54)

GL 5111 & KB 19 @ 5130.00ft (PIONEER 54)

True

Minimum Curvature

EDM 5000.1 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,771.00	1.23	169.21	8,478.38	-819.67	-1,268.45	1,509.77	0.25	-0.10	10.56
8,786.00	1.14	165.43	8,493.37	-819.97	-1,268.38	1,509.87	0.79	-0.60	-25.20
LAST SDI MI	ND PRODUCTIO	N SURVEY							
8,845.00	1.14	165,43	8,552,36	-821.11	-1,268.08	1,510,21	0.00	0.00	0.00

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Cool	+E/-W	
190.00	190.00	(ft) 0.14	(ft) 0.02	Comment FIRST SDI MWD SURFACE SURVEY
2,422.00	2,304.15	-329.74	-539.32	LAST SDI MWD SURFACE SURVEY
2,513.00	2,386.52	-350.92	-571.67	FIRST SDI MWD PRODUCTION SURVEY
8,786.00	8,493.37	-819.97	-1,268.38	LAST SDI MWD PRODUCTION SURVEY
8,845.00	8,552.36	-821.11	-1,268.08	SDI PROJECTION TO BIT

-			
Checked By:	Approve	d Bv	Data:
		ч <i>Б</i> у.	Date: